



### State of California—Health and Human Services Agency

# Department of Health Services



December 19, 2006

Mr. Richton Yee Food Stamp Policy Bureau California Department of Social Services 744 P Street, MS 1632 Sacramento, CA 95814

Dear Mr. Yee:

FINAL REPORT OF FEDERAL FISCAL YEAR (FFY) 2006

Enclosed is the Final Report of FFY 2006 Nutrition Education Activities for the *California Nutrition for Healthy, Active Families (Network)* and the University of California's Food Stamp Nutrition Education Program (UC FSNEP). The report uses forms issued by the United States Department of Agriculture (USDA) in February 2006. The report summarizes the efforts of California's local projects and statewide campaigns (e.g., media, public relations and *5aDay* Campaigns). We have made every effort to provide complete summary and contact information for nearly 250 local projects in the *Network* and UC FSNEP. This annual report includes data from over 99% of our local contractors. Combined, these efforts totaled nearly 10.9 million person-to-person contacts with individual (estimate only) and 736 million indirect contacts (impressions). Of the total combined FFY 2006 contacts (impressions), approximately 601 million were generated through paid TV, radio and outdoor advertising.

Similar to last year, this report does not fully capture the total extent of the California's efforts for the following reasons:

1. USDA Guidelines: The reporting requirements were revised significantly during the middle of the reporting period. Guidelines for the final report for FFY 06 were issued in February 2007. The final report templates and the type of data requested (e.g., estimates of unduplicated counts) were revised. These mid-stream changes presented significant data collection challenges and resulted in significant decreases in the totaled compared to FFY 05.

Internet Address: www.dhs.ca.gov

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- 2. For the *Network*, contact data reported through California's Semi Annual Activity Report (SAAR) require a six month period for cleaning and quality assurance. Our new web-based reporting system has allowed us to tally the data within the 30-day window required for this report for over 99 percent of the projects, but these do not have the usual degree of quality assurance.
- 3. The summary of social marketing activities provides an overview of the programmatic portion of the *Network's* direct services, and information on the volume of activity, but it does not allow for any reporting of results or a qualitative assessment on the California's full range of accomplishments. The areas which are absent in this report include: contract and fiscal management of state and federal resources; formative and survey research about low income population; process, summative and impact evaluation (other than impressions); partnership development, and accomplishments systems changes; and successes and strategic planning.

We look forward to continuing to work with USDA and the Department of Social Services to improve reporting that reflect the results being achieved through FSNE and to reduce the administrative burden. We are pleased that the Department of Health Services and UC Davis are able to provide support to the Food Stamp program particularly California' FSNE eligible low income family with children.

Sincerely,

Susan B. Foerster, M.P.H., R.D., Chief Cancer Prevention and Nutrition Section California Nutrition Network for Healthy, Active Families

#### **Enclosure**

cc: Charlotte Doisy
Food Stamp Policy Bureau
California Department of Social Services
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## **State Summary of FSNE-Eligible Contacts**

California Nutrition Network (Network) for Healthy, Active Families October 1, 2005 - September 30, 2006 (≤185% FPL)

Project Name	Total Unduplicated Contacts (Estimate Only)	Total Impressions (Estimate Only)
Local Projects	1,530,379 1	71,068,169 <sup>2</sup>
Network Media ( Advertising & Public Relations)	8,134,500 <sup>3</sup>	650,120,647 4
RNN / 5 a Day Campaigns	1,171,054 5	14,804,365 6
UC FSNEP	126,588	188,730
Total	10,962,521 7	736,181,911 8

California has 10.1 million persons living in households < 185% of the Federal Poverty level<sup>a</sup>, of whom 3.6 million are children under the age of 18 years<sup>a</sup>. For FFY 2005, California's average monthly participation in the Food Stamp Program was just under 2.0 million people<sup>b</sup>.

The unduplicated contact column demonstrates that the *California Nutrition Network* has reached large proportions of eligible Californians. In addition, the social marketing approach of the *Network* is based on the principles of commercial marketing that, not only is individual, direct education essential for changing behavior, but also multiple messages and contacts delivered in multiple reinforcing channels is key. The 736,181,911 total impressions targeting an estimated 10 million low-income persons represents success meeting this objective.

<sup>&</sup>lt;sup>a</sup> U.S. 2000 Census. Census of Populations and Housing. Summary File 4, Table PCT 144; Age by Ration of Income in 1999 to Poverty Level.

<sup>&</sup>lt;sup>b</sup> Food Research and Action Center (March 2006). State of the States 2006: A Profile of Food and Nutrition Programs Across the Nation. Retrieved from, http://www.frac.org/pdf/2006 SOS Report/pdf.

<sup>&</sup>lt;sup>1</sup> California received the FY 2006 State Summary Templates from USDA in February. Contractors did not have a mechanism in place to track within-agency unduplicated count at that time. In addition, there is no known way to track clients participating in programs held by more than one agency. Consequently, this number represents the sum of each contractor's best estimate of unduplicated count reached within that agency.

<sup>3</sup>Estimated unduplicated advertising impressions totaling 8,134,500 is based on 80.5% of approximately 10.1 million persons living in households below 185% FPL being exposed to a *Network* TV, radio or outdoor message at least one time during the 14 weeks of advertising. This estimated reach takes into account the fact that *Nutrition Network* messages run in markets representing 96% of all California food stamp recipients, but not all individuals will be exposed.

<sup>4</sup> The total for *Network* media is **650,120,657** of which **601,463,300** is for paid advertising and **48,657,347** is for Public Relations. For paid advertising, reported gross mass media impressions are based on Adults 18+, which is the standard demographic measurement used to estimate *Network* media impressions. Paid advertising between July and October, 2006 generated a total of 1,097,225,100 impressions (October '05 through January '06 advertising was funded from the FY '05 budget and, therefore, is not included in this estimate). Gross impressions were then factored down to an estimated 601,463,300 to adjust for Adults 18+ at or below 185% FPL, using adjustments factors from proprietary Scarborough Research Data. *Network* Public Relations activities generated 48,657,347 impressions during FFY 06. An additional 48,657,347 impressions were reported from *Network* public relations (PR) activities represent an Adult 18+ demographic; there is no known way to adjust PR for 185% FPL or to estimate unduplicated impressions (contacts).

<sup>5</sup> The number of contacts (unduplicated) is based upon direct contacts with individuals at FSNE-eligible sites through educational interactions, such as classroom-type lessons, interactive educational booths at festivals and farmers'/flea markets, food demonstrations, and other community events. This number includes persons living in households above 185% FPL. For example, for a school to qualify to participate in Network Power Play!, 50% or more of the children documented as eligible to receive free or reduced price meals; the other students may or may not live in households with higher income rates. All children in the school would be included in this estimate. Again, because there is no universal ID number that can be used without violating privacy issues and our design is to reach as many individuals as possible as many times and in as many multiple sites as possible through separately conducted interventions, there is at present no known way to provide an unduplicated count of individuals reached by FSNE interventions. Individuals may also have been reached through Local Incentive Awardees, other Network-funded projects, and/or UCD FSNEP.

<sup>6</sup> This cell counts multiple contacts with the same individual when they participate in a series of classroom-type lessons, and it uses multipliers to estimate the total number of family members reached through the direct participation of one family member in a *Campaign* intervention. The impression number also includes indirect contacts, such as retail and cafeteria merchandising.

<sup>7</sup> This cell totals best-estimates of unduplicated counts by all participating projects. The goal of FSNE is to reach the maximum number of FSNE-eligible persons as many times and as many ways possible. For example a child may receive nutrition education at school multiple times from different FSNE source providers (e.g., after-school programs, special events and community events). Likewise, a mother may receive nutrition education from different providers

<sup>&</sup>lt;sup>2</sup> The projection is based on the planned Scope of Work for FFY 2006; it will be updated when Semi-Annual Activity Report data is analyzed in January.

in community settings, at the store, through social groups and mass media. With existing data systems and rights of privacy, we know of no way to obtain a true unduplicated count and recommend instead that other measures of accountability and reach be used.

<sup>8</sup> With target populations of 10.1 million FSNE-eligibles, of whom about 7 million are parents and children specifically targeted by FSNE, it appears that California would have conveyed a FSNE message about 8 times per person in FYY 06, with direct contacts concentrated on persons living in the lowest income census tracts and attending low-resource schools. In commercial marketing, advertisers typically aim to reach their target multiple times per year.

# 1) Local Projects Summary of Contacts

California Nutrition Network (Network) for Healthy, Active Families October 1, 2005 - September 30, 2006

Project Name	Total Unduplicated Contacts (Estimate Only)	Total Impressions (Estimate Only)
All Local Projects  Grand Total of Contacts	1,530,379	71,068,169

# 1a) Local Projects Summary – Total Unduplicated Contacts (Estimate Only)

## **State Nutrition Education Report Summary**

P	roject Name	Delivery Locations		Au	dience	Methods	Content	Evaluation
		Geographic Area (Statewide or counties reached)	Delivery Sites (type and number)	Targeted Audience	Total No. of Participants (estimated, unduplicated count)	Frequency, Duration and Type of Educational Methods	Key Message(s)	Type and Status
1.	ABC Unified School District	Los Angeles County	6 Other Preschools or Daycares (not Head Start); 11 Schools (K-12); 1 WIC Site	51% Female; 49% Male; Children and Adults	6,620	Nutrition Education Classes; Nutrition Education Research/Evaluation; Promotion of Healthy Communities; Training/workshop/ conference	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact
2.	Alameda County Community Food Bank	Alameda County	Food Bank, 300 Food Bank Client Distribution Sites, 3 Schools (K-12)	63% African American, 23% Latino, 15% White, 3% Asian	4,632	Food Bank Client Nutrition Education classes, Health Fairs; Nutrition Education Classes; Nutrition Education, Research/Eval.	Fruit & Vegetables; Healthier Eating	Process, Completed

Sta	ite Summary of <u>L</u>	ocal Projects.						
Р	roject Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
3.	Alameda County Health Care Services Agency	Alameda County	23 Afterschool Programs; 6 Community-Based Organizations; 3 Community Clinics (non-government); 1 Community Youth Organization; 6 Faith/Churches; 1 Farmers' Market; 1 Head Start; 1 Housing Project; 2 Other Preschools or Daycares (not Head Start); 8 Parks,Recreation Centers; 29 Schools (K-12); 4 Senior Centers; 4 WIC Sites	52% Female; 48% Male; Children and Adults	23,425	Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Breast-feeding; Childhood Obesity Prevention; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact
4.	Alameda County Office of Education (California Healthy Kids Resource Center (CHKRC))	Statewide		Female; Male; Children and Adults	29,626	Other	Other	
5.	Alameda County Office of Education (Rock La Fleche Community School)	Alameda County	3 Schools (K-12)	50% Female; 50% Male; Children	250	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Promotion of Healthy Communities	Cooking Skills; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process

Sta	te Summary of <u>L</u>	ocal Projects.						
6. <b>P</b>	roject Name	Los Angeles	ery <sub>1</sub> Locations	<sub>52%</sub> Auc	lience <sub>2,400</sub>	Advisory Council/Task	Childhood Desity	Evaluation
	Unified School District	County	Program; 7 Other Preschools or Daycares (not Head Start); 17 Schools (K-12)	Female; 48% Male; Children and Adults		Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Training/workshop/ conference; TV	Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Impact
7.	Alisal Union School District	Monterey County	11 Schools (K-12); 1 Hispanic celebration called El Grito, nutrition ed. booth census track # 0605300900; 1 Migrant Fathers Health Fair	47% Female; 53% Male; Children and Adults	22,031	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact
8.	Berkeley Unified School District	Alameda County	10 Afterschool Programs; 10 Schools (K-12); 4 preschools	51% Female; 49% Male; Children	3,510	Nutrition Education Classes	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact
9.	Cajon Valley Union School District	San Diego County			25,006			
10.	California Association of Food Banks (Food Stamp Outreach)	Statewide		Female; Male; Children and Adults		Other	Other	

State Summary of	Local Projects.						
1 Project Name	Statewide Statewide	ry Locations	55% <b>Au</b>	dience <sub>6,480</sub>	Methods Community Education	Childhood Obesity	Evaluation
Association of Food Banks (Nutrition Education)		Based Organizations; 2800 Food Closets/Pantries/B anks; 10 Soup Kitchens/ Congregate Meal Sites	Female; 45% Male; Children and Adults		Events; Nutrition Education Classes; Training/workshop/ conference	Prevention; Cooking Skills; Food Safety; Fruit & Vegetables; Healthier Eating, general	Impact
12. California  Department of Education	Statewide	50 Other  Preschools or Daycares (not Head Start); 530 Schools (K-12); 80 Cal-SAFE programs; 30 Food service personnel	97% Female; 3% Male; Children and Adults	1,557	Advisory Council/Task Force; Print Media; Training/workshop/conf erence; Evaluation and Circulation of nutrition education curricula	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors; Feeding infants and toddlers, nutrition during pregnancy.	Formative; Process
13. California Project LEAN	Fresno, Santa Ana, San Bernardino, Escondido	8 Community Events, In Store, intervention sites	Spanish Speaking women between the ages of 18-55 and their families	1,200	Radio commercials, Community events in store food demonstrations	Bone Health, Dietary Quality and Food Security	Procces and impact
14. California  Rural Indian  Health Board, Inc.	Sacramento County	3 Afterschool Programs; 4 Head Start; 8 Indian Tribal Organizations; 1 WIC Site	55% Female; 45% Male; Children and Adults	600	Community Education  Events; Internet/Web Sites; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process

Project Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
15. California State University, Chico (Research Foundation)	Butte County	2 Afterschool Programs; 4 Community-Based Organizations; 2 Community Clinics (non-government); 3 Community Youth Organizations; 1 Garden; 6 Head Start; 1 Healthy Start; 3 Indian Tribal Organizations; 14 Other Preschools or Daycares (not Head Start); 1 Park, Recreation Center; 3 Public Health Departments; 59 Schools (K-12); 1 University, Community College; 9 Family Resource Centers; 1 Breastfeeding Support Center	60% Female; 40% Male; Children and Adults	145,104	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Radio; Training/workshop/ conference; TV	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact
16. Calistoga Joint Unified School District		1 Afterschool Program; 1 Community Clinic (non-government); 1 Garden; 2 Grocery Stores; 2 Schools (K-12); 1 Family Center	49% Female; 51% Male; Children and Adults	1,260	Community Education Events; Nutrition Education Classes; Print Media; Promotion of Healthy Communities	Childhood Obesity Prevention; Cooking Skills; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process

State Summary of							
Project Name	Delivery Locations		Au	dience	Methods	Content	Evaluation
17. Central Valley Health Network	Fresno County	16 Afterschool Programs; 40 Community-Based Organizations; 59 Community Clinics (non-government); 13 Community Youth Organizations; 23 Faith/Churches; 15 Farmers' Markets; 3 Food Closets/Pantries/B anks; 1 Garden; 15 Grocery Stores; 13 Head Start; 4 Housing Projects; 5 Other Preschools or Daycares (not Head Start); 8 Parks, Recreation Centers; 515 Private Homes; 15 Public Health Departments; 75 Schools (K-12); 16 Senior Centers; 3 Universities, Community Colleges; 6 WIC Sites; 20 Worksites	60% Female; 40% Male; Children and Adults	65,000	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Radio; Training/workshop/conf erence; TV; Individual Education	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact
18. Children's Council of San Francisco	San Francisco County	1 Community- Based Organization; 3 Farmers' Markets; 2 Other Preschools or Daycares (not Head Start); 75 Private Homes	90% Female; 10% Male; Adults	150	Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Training/workshop/ conference	Cooking Skills; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process

State Summary of I	ocal Projects.						
Project Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
19. City and County of San Francisco, Department of Public Health	San Francisco County	5 Afterschool Programs; 14 Community-Based Organizations; 2 Community Clinics (non-government); 3 Community Youth Organizations; 2 Faith/Churches; 1 Farmers' Market; 1 Food Closet/Pantry/Bank ; 2 Head Start; 3 Health Care Facilities (non-government); 1 Healthy Start; 5 Other Preschools or Daycares (not Head Start); 1 Park, Recreation Center; 1 Public Health Department; 1 Senior Center; 3 Soup Kitchens/ Congregate Meal Sites; 5 WIC Sites	60% Female; 40% Male; Children and Adults	15,071	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Radio; Training/workshop/conf erence; TV	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact
20. City of Berkeley Department of Health and Human Services	Alameda County	3 Afterschool Programs; 1 Faith/Church; 2 Farmers' Markets; 8 Head Start; 3 Parks, Recreation Centers; 1 Public Health Department; 1 Senior Center; 1 WIC Site	55% Female; 45% Male; Children and Adults	2,200	Community Education Events; Nutrition Education Classes	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Eat Breakfast	Formative; Process

State Summary of <u>I</u>	ocal Projects.						
2 Project Name	Los Angeles	ry <sub>1</sub> Locations	<sub>52%</sub> Au	dience <sub>110</sub>	Community Education	Childhood Obesity	Evaluation Formative:
Parks and Recreation Department	County	Program; 1 Food Closet/Pantry/Bank ; 7 Schools (K-12); 1 Senior Center	Female; 48% Male; Children and Adults		Events; Nutrition Education Classes	Prevention; Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact
Beach Department of Public Health	Los Angeles County	Programs; 30 Community-Based Organizations; 3 Community Clinics (non-government); 1 Community Youth Organization; 3 Faith/Churches; 2 Farmers' Markets; 10 Head Start; 3 Health Care Facilities (non-government); 3 Healthy Start; 2 Housing Projects; 2 Other Preschools or Daycares (not Head Start); 4 Parks, Recreation Centers; 50 Private Homes; 1 Public Health Department; 1 Senior Center; 5 WIC Sites	Female; 40% Male; Children and Adults	1,180	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Retail Promotion; Training/workshop/ conference	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact

	of <u>Local Projects.</u>	ry Locations	۸	dionco	Mothodo	Contont	Evaluation
23. Montclair	Bernardino County	(non-government); 1 Faith/Church; 1 Farmers' Market; 1 Grocery Store; 1 Park, Recreation Center; 1 apartment complex community centers	75% Au Female; 25% Male; Adults	dience <sub>160</sub>	Community Education  Events; Nutrition  Education Classes;  Print Media	Cooking Skills.  Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Shopping Behaviors	Fyzelystion
24. City of Pasadena Public Healt Department		1 Afterschool Program; 5 Community-Based Organizations; 2 Community Clinics (non-government); 1 Faith/Church; 1 Farmers' Market; 3 Grocery Stores; 3 Head Start; 3 Parks, Recreation Centers; 1 Public Health Department; 2 Senior Centers	90% Female; 10% Male; Children and Adults	850	Advisory Council/Task Force; Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process
25. Community Services Planning Council, Inc (Sacrament Hunger Commission	o	1 Afterschool Program; 1 Food Closet/Pantry/ Bank; 1 Head Start; 3 Housing Projects	50% Female; 50% Male; Children and Adults	300	Internet/Web Sites;  Nutrition Education Classes; Nutrition Education Research/Evaluation; Training/workshop/ conference	Fruit & Vegetables; Healthier Eating, general	Process; Impact
26. Community Services Unlimited	Los Angeles County	1 Afterschool Program; 2 Gardens; 1 School (K-12)	60% Female; 40% Male; Children	450	Community Education Events; Nutrition Education Classes; Nutrition Education Research/Evaluation	Childhood Obesity Prevention; Cooking Skills; Fruit & Vegetables; Healthier Eating, general	Formative; Process; Impact

State Summary of	Local Projects.						
Project Name	Delive	ry Locations	Aud	dience	Methods	Content	Evaluation
27. Compton Unified School District	Los Angeles County	37 Schools (K-12)	62% Female; 38% Male; Children	25,769	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general	Process; Impact
28. Contra Costa County Health Services (Community Wellness and Prevention Program)	Contra Costa County	10 Afterschool Programs; 2 Faith/Churches; 2 Farmers' Markets; 1 Food Closet/Pantry/Bank ; 2 Grocery Stores; 1 Housing Project; 450 Other Preschools or Daycares (not Head Start); 2 Parks, Recreation Centers; 7 Public Health Departments; 11 Schools (K-12);4 Senior Centers; 1 University, Community College; 4 WIC Sites; 8 parents groups; 4 First Five Centers	90% Female; 10% Male; Children and Adults	10,555	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Training/workshop/conf erence; TV; Food Stamp mailings	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact

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State Summary of I	ocal Projects.						
29. Project Name	Orange Delive	ry Locations	<sub>50%</sub> Aud	dience <sub>,600</sub>	Advisory Council/Task	Childhood Obesity	Evaluation Formative
Orange County, St. Vincent de Paul (Second Harvest Food Bank of Orange County)	County	Programs	Female; 50% Male; Children		Force; Community Education Events; Nutrition Education Classes; Print Media; Training/workshop/ conference; TV	Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Shopping Behaviors	
30. Del Norte  Unified School District	Del Norte County	Programs; 4 Community-Based Organizations; 1 Community Youth Organization; 1 Farmers' Market; 3 Food Closets/Pantries/B anks; 1 Food Stamp Office; 10 Gardens; 6 Head Start; 3 Healthy Start; 2 Indian Tribal Organizations; 3 Other Preschools orDaycares (not Head Start); 1 Park, Recreation Center; 1 Public Health Department; 13 Schools (K-12); 1 Senior Center	Female; 50% Male; Children and Adults	30,500	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Promotion of Healthy Communities; Radio; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact

31. Project Name	Los An Deliye	ry Locations 14 Schools (K-12)	<sub>52%</sub> Aud	dience <sub>0,600</sub>	Advisory Council/Task	Childhood Obesity	Evaluation
Unified School District	County	14 OCHOOIS (K-12)	Female; 48% Male; Children and Adults	10,000	Force; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Training/workshop/ conference	Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact
32. East Los Angeles College	Los Angeles County	7 Afterschool Programs; 10 Schools (K-12); 1 Senior Center; 1 University, Community College	75% Female; 25% Male; Children and Adults	3,321	Nutrition Education Classes; Nutrition Education Research/Evaluation; Promotion of Healthy Communities	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact
33. East Side School District (Andrew Hill High School)	Santa Clara County	2 Afterschool Programs; 1 Community-Based Organization; 1 School (K-12)	50% Female; 50% Male; Children	192	Nutrition Education Classes; Nutrition education in PE	Childhood Obesity Prevention; Cooking Skills; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process

Project Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
34. El Monte City School District	Los Angeles County	1 Community-Based Organization; 2 Grocery Stores; 1 Park, Recreation Center; 18 Schools (K-12)	49% Female; 51% Male; Children and Adults	13,063	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Retail Promotion; Training/workshop/conf erence; Classroom andcafeteria-based fruit and vegetable promotions	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact
35. Elk Grove Unified School District	Sacramento County	12 Afterschool Programs; 1 Farmers' Market; 1 Grocery Store; 16 Schools (K-12)	48% Female; 52% Male; Children and Adults	18,200	Internet/Web Sites; Nutrition Education Classes; Print Media; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process
36. Environmental Education Council of Marin	Marin County	1 Afterschool Program; 5 Gardens; 1 Park, Recreation Center; 4 Schools (K-12)	48% Female; 51% Male; Children and Adults	1,500	Community Education Events; Nutrition Education Classes; Print Media; Promotion of Healthy Communities	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact

P	roject Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
37.	Farmersville Unified School District	Tulare County	1 Healthy Start; 6 Schools (K-12)	50% Female; 50% Male; Children	400	Community Education Events; Nutrition Education Classes	Childhood Obesity Prevention; Cooking Skills; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process
38.	First 5 Amador	Amador County			145			
39.	Food Bank of Yolo County	Yolo County	2 Community- Based Organizations; 1 Farmers' Market; 3 Head Start; 5 Housing Projects; 3 Other Preschools or Daycares (not Head Start)	98% Female; 2% Male; Children and Adults	1,234	Community Education Events; Nutrition Education Classes; Print Media	Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact
40.	Food for People, Inc.	Humboldt County	Elementary school classrooms, farmers' market, vegetable farm	Elementary school students: 50% male, 50% female	264	Garden enhanced nutrition education accompanying farm-to- school initiatives; farmer classroom visits; field trips to vegetable farm and farmers' market	Fruit & Vegetables; Healthier Eating	Process, Completed
41.	Fresno County Office of Education	Fresno County	9 Afterschool Programs; 6 Other Preschools or Daycares (not Head Start); 24 Schools (K-12); 1 Fresno Fairgrounds	50% Female; 50% Male; Children and Adults	12,159	Community Education Events; Nutrition Education Classes; Nutrition Education Research/Evaluation; Training/workshop/ conference	Childhood Obesity Prevention; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact

P	roject Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
42.	Fresno Unified School District	Fresno County	13 Schools (K-12); 3 Parent and Child Education Centers (ages 1-4) on eligible high school campuses; 1 Preschool on eligible high school campus	51% Female; 49% Male; Children and Adults	5,000	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Training/workshop/ conference; Billboard	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact
43.	Greenfield Union School District	Kern County	11 Afterschool Programs; 1 Community-Based Organization; 1 Food Closet/Pantry/Bank ; 3 Gardens; 1 Park, Recreation Center; 11 Schools (K-12)	48% Female; 52% Male; Children and Adults	7,689	Advisory Council/Task Force; Nutrition Education Classes; Promotion of Healthy Communities	Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process
44.	Hawthorne School District	Los Angeles County	1 Community- Based Organization; 1 Food Stamp Office; 1 Grocery Store; 13 Schools (K-12)	49% Female; 51% Male; Children and Adults	10,000	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Training/workshop/ conference; TV	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact

State Sur	mmary of <u>L</u>	ocal Projects.						
Project	t Name	Deliver	y Locations	Au	dience	Methods	Content	Evaluation
45. Hayw Unifie Distri	ed School	Alameda County	21 Afterschool Programs; 37 Schools (K-12)	50% Female; 50% Male; Children and Adults	11,258	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact
46. Healt Educ Coun	cation	Sacramento County	5 Community- Based Organizations; 1 Farmers' Market; 1 Food Stamp Office; 1 Head Start; 2 Housing Projects; 1 Park, Recreation Center; 1 WIC Site	75% Female; 25% Male; Children and Adults	1,600	Advisory Council/Task Force; Community Education Events; Nutrition Education Classes; Print Media; Radio; Retail Promotion	Cooking Skills; Dietary Quality; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Shopping Behaviors	Formative; Process
	boldt nty Office ducation	Humboldt County	8 Afterschool Programs; 22 Schools (K-12)	55% Female; 45% Male; Children and Adults	6,865	Community Education Events; Nutrition Education Classes; Garden Enhanced Nutrition Ed.	Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Impact
	ch Union School	Orange County	7 Afterschool Programs; 1 Farmers' Market; 16 Schools (K-12)	50% Female; 50% Male; Children and Adults	2,239	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Training/workshop/ conference	Childhood Obesity Prevention; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process

Project Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
49. Imperial County Public Health Department	Imperial County	1 Community Clinic (non-government); 5 Head Start; 2 Housing Projects; 5 Other Preschools or Daycares (not Head Start); 1 Public Health Department; 2 Senior Centers	50% Female; 50% Male; Children and Adults	527	Community Education Events; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Training/workshop/ conference; Collaboration with other agencies	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process
50. Kern County Department of Public Health	Kern County	14 Afterschool Programs; 3 Community-Based Organizations; 7 Food Stamp Offices; 1 Head Start; 1 Public Health Department; 25 Schools (K-12); 2 Worksites; 11 Public Health sub- office in outlying areas of the county.; 5 Health Fairs that are held in low income neighborhoods.	52% Female; 48% Male; Children and Adults	3,000	Community Education Events; Nutrition Education Classes; Nutrition Education Research/Evaluation; TV; Billboards in qualifying census tract of Lamont, McFarland, Bakersfield, Delano, and Wasco as shown on the listed census tract.	Childhood Obesity Prevention; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact

State Summary of	Local Projects.				
51. Project Name	Kern County 3 Afterschool	52% Audience	Advisory Council/Task	Childhood Obesity	Evaluation Formative:
Union School District (Family Resource Center)	Programs; 7 Community-Based Organizations; 2 Community Clinics (non-government); 3 Community Youth Organizations; 2 Faith /Churches; 4 Food Closets/Pantries/B anks; 1 Food Stamp Office; 2 Gardens; 1 Head Start; 2 Health Care Facilities (non-government); 1 Housing Project; 1 Indian Tribal Organization; 1 Other Preschool or Daycare (not Head Start); 1 Park, Recreation Center; 50 Private Homes; 3 Schools (K-12); 1 Senior Center; 1 Soup Kitchen/ Congregate Meal Site; 4 Worksites; 1 local dental services	Female; 48% Male; Children and Adults	Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Radio; Training/workshop/ conference; TV	Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact

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Ρ	roject Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
52.	Lamont School District	Kern County	4 Afterschool Programs; 1 Community-Based Organization; 1 Community Clinic (non-government); 2 Grocery Stores; 1 Other Preschool or Daycare (not Head Start); 1 Park, Recreation Center; 100 Private Homes; 4 Schools (K-12); 1 Farmworkers camp	50% Female; 50% Male; Children and Adults	1,300	Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact
53.	Long Beach Unified School District	Los Angeles County	15 Afterschool Programs; 29 Other Preschools or Daycares (not Head Start); 57 Schools (K-12)	50% Female; 50% Male; Children and Adults	38,800	Nutrition Education Classes; Training/workshop/ conference	Childhood Obesity Prevention; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact
54.	Los Angeles Coalition to End Hunger and Homelessness	Los Angeles County	Food Pantry, Farmers' Market, Homeless Day Center, 2 Churches, 1 Senior center	Families, seniors or individuals in target census tracts participatin g in or income eligible for FSP	1,000	Nutrition Education at Homeless and Food Pantry Organization and Sites, Community Education Events; Nutrition Education Classes; Research/Eval.	Fruit & Vegetables; Healthier Eating	Process, Completed

Р	roject Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
55.	Los Angeles Community Action Network	Los Angeles County	25 Community-Based Organizations; 5 Community Clinics (non-government); 5 Food Closets/Pantries/B anks; 20 Housing Projects; 3 Parks, Recreation Centers; 5 Soup Kitchens/Congrega te Meal Sites	30% Female; 70% Male; Children and Adults	1,380	Nutrition Education Classes; Promotion of Healthy Communities	Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general	Formative; Process; Impact
56.	Los Angeles County Department of Health Services	Los Angeles County	Contractor not funded in FFY 06		0			
57.	Los Angeles County Office of Education	Los Angeles County	1 Afterschool Program; 1 Community-Based Organization; 1 Community Clinic (non-government); 2 Gardens; 47 Schools (K-12)	48% Female; 52% Male; Children and Adults	7,070	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact
58.	Los Angeles Trade Technical College	Los Angeles County	3 Afterschool Programs; 2 Other Preschools or Daycares (not Head Start); 10 Schools (K-12); 1 University, Community College	38% Female; 62% Male; Children and Adults	8,750	Nutrition Education Classes	Childhood Obesity Prevention; Cooking Skills; Fruit & Vegetables; Healthier Eating, general	Process; Impact

P	roject Name	Delive	ry Locations	Aud	dience	Methods	Content	Evaluation
59.	Los Angeles Unified School District	Los Angeles County	425 Schools (K-12)	57% Female; 43% Male; Children and Adults	350,000	Nutrition Education Classes	Fruit & Vegetables; Physical Activity Promotion	Impact
60.	Madera County Children and Families Commission - First 5	Madera County	4 Community-Based Organizations; 1 Farmers' Market; 1 Food Stamp Office; 1 Grocery Store; 2 Head Start; 1 Health Care Facility (non-government); 5 Other Preschools or Daycares (not Head Start); 1 Public Health Department; 2 Schools (K-12); 1 WIC Site	91% Female; 9% Male; Children and Adults	781	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Training/workshop/conf erence	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process
61.	Madera Unified School District	Madera County	1 Other Preschool or Daycare (not Head Start); 14 Schools (K-12)	49% Female; 51% Male; Children	3,000	Nutrition Education Classes	Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process
62.	Manila Community Services District	Humboldt County	1 Afterschool Program; 1 Community Youth Organization; 1 Garden; 1 Park, Recreation Center	70% Female; 30% Male; Children and Adults	2,820	Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Radio; TV	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process

State Summary of	Local Projects.						
Project Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
63. Marin County Department of Health and Human Services		2 Afterschool Programs; 25 Community-Based Organizations; 1 Community Clinic (non-government); 3 Community Youth Organizations; 2 Farmers' Markets; 2 Food Closets/Pantries/B anks; 1 Food Stamp Office; 3 Gardens; 1 Head Start; 2 Health Care Facilities (non-government); 1 Other Preschool or Daycare (not Head Start); 1 Public Health Department; 7 Schools (K-12); 1 Senior Center; 1 Soup Kitchen/Congregat e Meal Site; 1 WIC Site	50% Female; 50% Male; Children and Adults	2,750	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Radio; Training/workshop/ conference; TV	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact
64. Mendocino County Public Health Department - WIC Program	Mendocino County	Health fairs, Boys and Girls Club, Head Start, Latino Community Center, Food Bank/Community Center;	WIC participants (mothers and children <=5 years), Latino families, children	761	public service announcements, nutrition education classes	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process

Sta	State Summary of Local Projects.								
Р	roject Name	Delive	ry Locations	Audience		Methods	Content	Evaluation	
65.	Merced County Office of Education	Merced County	6 Afterschool Programs; 1 Community-Based Organization; 11 Other Preschools or Daycares (not Head Start); 6 Schools (K-12)	50% Female; 50% Male; Children and Adults	47,800	Advisory Council/Task Force; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Training/workshop/conf erence; TV	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact	
66.	Monrovia Unified School District	Los Angeles County	11 Afterschool Programs; 3 Community-Based Organizations; 10 Community Youth Organizations; 1 Farmers' Market; 1 Food Closet/Pantry/Bank ; 3 Gardens; 3 Grocery Stores; 1 Healthy Start; 2 Other Preschools or Daycares (not Head Start); 10 Schools (K-12)	47% Female; 53% Male; Children	9,500	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Retail Promotion; Training/workshop/ conference; TV	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact	
67.	Montebello Unified School District	Los Angeles County	12 Afterschool Programs; 11 Head Start; 28 Schools (K-12)	49% Female; 51% Male; Children and Adults	27,200	Advisory Council/Task Force; Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors; Family meal times, choices and consequences	Process	

Р	Project Name Monterey Locations				50% Audience Community Education		Content	Evaluation
<u>68.</u>	County Department of Public Health	County	Programs; 1 Farmers' Market; 1 Grocery Store; 1 Public Health Department; 10 Schools (K-12); 1 WIC Site; 1 Adult School	Female; 50% Male; Children and Adults	<u>шене</u> ,000	Community Education  Events; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Radio; Training/workshop/conf erence; TV	Breast-feeding.  Childhood Obesity Prevention; Cooking Skills; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Impact
69.	Mount Diablo Unified School District	Contra Costa County	12 Afterschool Programs; 2 Gardens; 2 Parks, Recreation Centers	48% Female; 52% Male; Children	2,081	Advisory Council/Task Force; Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities	Cooking Skills; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Impact
70.	Native American Health Center	San Francisco County	1 Community- Based Organization; 1 Farmers' Market; 1 Head Start; 3 Indian Tribal Organizations; 1 WIC Site	60% Female; 40% Male; Children and Adults	1,300	Community Education  Events; Nutrition  Education Classes;  Promotion of Healthy  Communities	Cooking Skills; Dietary Quality; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process
71.	Newport-Mesa Unified School District	Orange County	10 Afterschool Programs; 5 Other Preschools or Daycares (not Head Start); 14 Schools (K-12)	49% Female; 51% Male; Children	10,763	Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Training/workshop/ conference	Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact

Project Name	Delive	ry Locations	Aud	dience	Methods	Content	Evaluation
72. Occidental College, Center for Food and Justice	Los Angeles County, Riverside County	1 School (K-12)	51% Female; 49% Male; Children	300	Nutrition Education Classes; Promotion of Healthy Communities	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process
73. Orange County Department of Education	Orange County	47 Other Preschools or Daycares (not Head Start); 36 Schools (K-12)	49% Female; 51% Male; Children and Adults	7,990	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact

State Summary of <u>Local Projects.</u>									
Project Name	Delive	ry Locations	Au	dience	Methods Content		Evaluation		
74. Orange County Health Care Agency	Orange County	10 Afterschool Programs; 25 Community-Based Organizations; 20 Community Clinics (non-government); 10 Community Youth Organizations; 5 Faith/Churches; 9 Farmers' Markets; 25 Food Closets/Banks; 11 Food Stamp Offices; 44 Head Start; 250 Health Care Facilities (non-government); 25 Other Preschools or Daycares (not Head Start); 1120 Private Homes; 1 Public Health Dept; 65 Schools (K-12); 10 Senior Centers; 35 Soup Kitchens/Congregate Meal Sites; 33 WIC Sites; 2 Worksites; 10 Shelter/TransLiving site; 50 State Preschool sites	50% Female; 50% Male; Children and Adults	43,127	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Radio; Retail Promotion; Training/workshop/ conference; TV	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact		

State Summary of L	State Summary of Local Projects.									
75. Project Name	Orange Delive	ry Locations	38% <b>Au</b>	dienc <sub>e,520</sub>	Community Education	Cooking Skills, Dietary	Evaluation			
County Superintenden t of Schools	County	Programs; 46 Schools (K-12); 2 Family Resource Centers	Female; 62% Male; Children and Adults		Events; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Training/workshop/ conference	Quality; Healthier Eating, general; Physical Activity Promotion	Impact			
76. Orange	Orange	3 Other Preschools	49%	14,000	Community Education	Fruit & Vegetables;	Process;			
Unified School District	County	or Daycares (not Head Start); 15 Schools (K-12)	Female; 51% Male; Children and Adults		Events; Nutrition Education Classes; Nutrition Education Research/Evaluation; Harvest of the Month/Season	Healthier Eating, general; Physical Activity Promotion	Impact			
77. Pasadena	Los Angeles	18 Afterschool	49%	21,321	Advisory Council/Task	Childhood Obesity	Formative;			
Unified School District	County	Programs; 5 Healthy Start; 30 Schools (K-12)	Female; 51% Male; Children		Force; Community Education Events; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Training/workshop/conf erence; TV	Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact			
78. Placer County	Placer	1 Afterschool	70%	749	Community Education	Breast-feeding;	Formative;			
Department of Health and Human Services	County	Program; 4 Community-Based Organizations; 1 Head Start; 4 WIC Sites	Female; 30% Male; Children and Adults		Events; Nutrition Education Classes; Nutrition Education Research/Evaluation; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process			

State Summary of Local Projects.									
Project Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation		
79. Riverside County Health Services Agency (Prop 10)	Riverside County	5 Afterschool Programs; 25 Community-Based Organizations; 2 Community Clinics (non-government); 10 Community Youth Organizations; 6 Faith/Churches; 5 Food Stamp Ofcs; 20 Grocery Stores; 20 Head Start; 4Health Care Facilities (non-government); 2 Housing Projects; 1 Indian Tribal Organization; 5 Other Preschools or Daycares (not Head Start); 5 Parks, Recreation Centers; 1 Public Health Department; 29 Schools (K-12); 1 Senior Center; 2 Soup Kitchens/ Congregate Meal Sites; 1 University, Community College; 22 WIC Sites	90% Female; 10% Male; Children and Adults	23,269	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Radio; Retail Promotion; Training/workshop/ conference; TV	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact		
80. Rosemead School District	Los Angeles County	4 Other Preschools or Daycares (not Head Start); 5 Schools (K-12)	49% Female; 51% Male; Children and Adults	2,600	Internet/Web Sites; Nutrition Education Classes; Print Media; Training/workshop/ conference	Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process		

State Summary of <u>I</u>	State Summary of Local Projects.										
Project Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation				
81. Sacramento County Department of Health & Human Services (Clinic Services)	Sacramento County	2 Afterschool Programs; 3 Community-Based Organizations; 1 Community Youth Organization; 1 Faith/Church; 1 Farmers' Market; 1 Food Closet/Pantry/Bank ; 3 Food Stamp Offices; 2 Grocery Stores; 2 Housing Projects; 1 Indian Tribal Organization; 2 Parks, Recreation Centers; 1 Public Health Department; 2 Schools (K-12); 9 Public Health Clinic; 1 On-site classroom	50% Female; 50% Male; Children and Adults	1,167	Community Education Events; Nutrition Education Classes; Retail Promotion	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact				

Project Name	San Benito	ry Locations 2 Head Start: 9	50% Audi	ence <sub>343</sub>	Community Education	Childhood Obesity	Evaluation Formative:
County Health & Human Services Agency	County	Other Preschools or Daycares (not Head Start); 1 WIC Site; 3 Community Outreach Sites (Baby Safety Shower for MC/CMSP/WIC eligible clients held at RO Hardin ES, Health Fair (consumer survey eligible), Stork's Nest Store Day held at WIC site) Kids @ the Park children's health & safety fair (State Provided consumer survey eligible).; 4 perinatal groups (Stork's Nest clients who are MC/CPSP/WIC eligible, Oaxacan Women's Project MC/CPSP/WIC eligible)	Female; 50% Male; Children and Adults	<b>3.0</b>	Events; Nutrition Education Classes; Training/workshop/ conference	Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process

Р	roject Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
83.	San Bernardino County Department of Public Health	San Bernardino County	1 Community-Based Organization; 1 Faith/Church; 1 Park, Recreation Center; 1 Public Health Department; 3 Schools (K-12); 1 University, Community College; 1 Elected Officials (partner); 1 County Office of Education (partner)	70% Female; 30% Male; Children and Adults	1,569	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Fruit & Vegetables; Physical Activity Promotion	Process; Impact
84.	San Bernardino Parks and Recreations and Community Services	San Bernardino County	11 Afterschool Programs; 2 Faith/Churches; 6 Gardens; 1 Head Start; 6 Parks, Recreation Centers; 2 Senior Centers	60% Female; 40% Male; Children and Adults	500	Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Cooking Skills; Food Safety; Physical Activity Promotion; Shopping Behaviors	
85.	San Diego Community College District	San Diego County	15 Adult schools	Female; Male; Adults	470	Internet/Web Sites; Nutrition Education Classes	Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Shopping Behaviors	Impact
86.	San Francisco Food Systems Council	San Francisco County	2 Schools (K-12), 3 Farmers' Markets, 2 Summer Lunch Program sites	39% Asian, 22% White, 21% African American, 10% Latino, 8% other	15,000	Nutrition Education tied to Farmers' Market Tours, School classroom settings and Fairs; Nutrition Education, Research/Eval.	Fruit & Vegetables; Healthier Eating	Process, Completed

Pro	oject Name	Delive	ry Locations	Aud	dience	Methods	Content	Evaluation
	San Francisco Unified School District	San Francisco County	50 Afterschool Programs; 84 Schools (K-12)	47% Female; 53% Male; Children	21,330	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Training/workshop/ conference	Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact
(	San Joaquin County Public Health Services	San Joaquin County	2 Community-Based Organizations; 2 Faith/Churches; 1 Food Closet/ Pantry/Bank; 5 Head Start; 1 Housing Project; 2 Parks, Recreation Centers; 1 Public Health Department; 4 Schools (K-12)	65% Female; 35% Male; Children and Adults	420	Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process

Project Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
89. San Mateo County Health Services Agency	San Mateo County	15 Afterschool Programs; 12 Community-Based Organizations; 7 Community Clinics (non-government); 9 Community Youth Organizations; 4 Faith/Churches; 2 Farmers' Markets; 5 Food Stamp Offices; 2 Grocery Stores; 1 Housing Project; 6 Other Preschools or Daycares (not Head Start); 3 Parks, Recreation Centers; 1 Public Health Department; 6 WIC Sites; 6 Public Libraries; 2 ESL classes	85% Female; 15% Male; Children and Adults	4,772	Advisory Council/Task Force; Community Education Events; Nutrition Education Classes; Print Media; Training/workshop/ conference	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process
90. Santa Ana Unified School District	Orange County	3 Other Preschools or Daycares (not Head Start); 53 Schools (K-12); 6 Local Bookstore	49% Female; 50% Male; Children and Adults	31,670	Community Education Events; Nutrition Education Classes; HOTM Parent/Teacher Newsletters	Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact

State Summary of Project Name		ry Locations	Aud	dience	Methods	Content	Evaluation
91. Santa Barbara County Public Health Department	Santa Barbara County	1 Faith/Church; 1 Food Closet/Pantry/Bank ; 1 Head Start; 1 Housing Project; 1 School (K-12)	60% Female; 40% Male; Children and Adults	1,246	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Portion size education	Process
92. Santa Clara County Public Health Department	Bay Area Regionwide	20 Afterschool Programs; 65 Community-Based Organizations; 40 Community Youth Organizations; 4 Faith/Churches; 20 Farmers' Markets; 95 Grocery Stores; 5 Housing Projects; 5 Public Health Departments; 2 Restaurants/Diners /Fast Food; 60 Schools (K-12); 5 WIC Sites; 6 Worksites; 6 large festivals; 5 health care providers	60% Female; 40% Male; Children and Adults	15,000	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Radio; Retail Promotion; Training/workshop/ conference	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact

Sta	te Summary of <u>L</u>	ocal Projects.						
Р	roject Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
	Santa Clara County Public Health Department	Santa Clara County	1 Afterschool Program; 10 Community-Based Organizations; 1 Community Clinic (non-government); 1 Community Youth Organization; 2 Farmers' Markets; 20 Food Closets/Pantries/B anks; 1 Food Stamp Office; 2 Head Start; 5 Other Preschools or Daycares (not Head Start); 1 Public Health Department; 24 Schools (K-12); 6 WIC Sites; 1 Worksite	60% Female; 40% Male; Children and Adults	15,000	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Radio; Training/workshop/ conference; TV	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process
94.	Santa Clarita Valley School Food Services Agency	Los Angeles County	1 Garden; 1 Other Preschool or Daycare (not Head Start); 6 Schools (K-12)	50% Female; 50% Male; Children	3,800	Nutrition Education Classes; Training/workshop/ conference	Cooking Skills; Food Safety; Fruit & Vegetables; Healthier Eating, general	Formative; Process
95.	Santa Cruz City School District	Santa Cruz County	2 Afterschool Programs; 2 Gardens; 2 Schools (K-12)	52% Female; 48% Male; Children	3,555	Advisory Council/Task Force; Community Education Events; Nutrition Education Classes	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process

Project Nan	ne Delive	Delivery Locations		dience	Methods	Content	Evaluation
96. Second Harvest Fo Bank of Sa Cruz and S Benito Counties	nta	10 Community-Based Organizations; 1 Farmers' Market; 30 Food Closets/Pantries/B anks; 2 Food Stamp Offices; 2 Gardens; 4 Head Start; 20 Housing Projects; 8 Soup Kitchens/Congrega te Meal Sites; 5 USDA distributions	52% Female; 48% Male; Children and Adults	15,000	Advisory Council/Task Force; Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/conf erence; Food distribution site outreach	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact
97. Shasta Co Office of Education	unty Shasta County	4 Afterschool Programs; 4 Gardens; 1 Head Start; 1 Indian Tribal Organization; 27 Other Preschools or Daycares (not Head Start); 7 Schools (K-12); 1 University, Community College; 1 Worksite; 213 Family Child Care Homes	50% Female; 50% Male; Children and Adults	7,453	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Radio; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact

State Summary of <u>I</u>	ocal Projects.						
98. Shasta County	Shasta Delive	ry-Locations 7 Aiterschool	<sub>51%</sub> Au	dience <sub>,350</sub>	Advisory Council/Task	Childhood Obesity	Evaluation
Public Health Department	County	Programs; 2 Community Youth Organizations; 1 Faith/Church; 10 Food Closets/Pantries/B anks; 2 Food Stamp Offices; 5 Gardens; 1 Head Start; 2 Housing Projects; 1 Indian Tribal Organization; 1 Other Preschool or Daycare (not Head Start); 2 Parks, Recreation Centers; 1 Public Health Department; 16 Schools (K-12); 5 Senior Centers; 2 WIC Sites; 2 Worksites	Female; 48% Male; Children and Adults		Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Promotion of Healthy Communities; Radio; Training/workshop /conference; TV	Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Impact
99. Solano County  Health and Social Services Department	Solano County	4 Food Closets/Pantries/B anks; 4 Food Stamp Offices; 2 Public Health Departments; 12 WIC Sites	80% Female; 20% Male; Children and Adults	872	Advisory Council/Task Force; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/conf erence; Provider and client newsletters	Breast-feeding; Cooking Skills; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process

Project Name	Delive	ry Locations	Aud	dience	Methods	Content	Evaluation
100. Sonoma County Department of Health Services	Sonoma County	5 Afterschool Programs; 5 Gardens; 1 Public Health Department; 5 Schools (K-12); 6 WIC Sites; 2 Summer school	57% Female; 43% Male; Children and Adults	3,891	Advisory Council/Task Force; Nutrition Education Classes; Training/workshop/ conference	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact
101. Sonoma State University	Sonoma County	8 Afterschool Programs; 4 Community-Based Organizations; 1 Community Clinic (non-government); 1 Farmers' Market; 1 Food Closet/Pantry/Bank ; 8 Gardens; 3 Grocery Stores; 1 Public Health Department; 8 Schools (K-12); 2 Universities, Community Colleges	45% Female; 55% Male; Children and Adults	2,084	Advisory Council/Task Force; Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact

State Summary of L	ocal Projects.						
102. Southern	San Diego	ry Locations	<sub>58%</sub> Au	dience <sub>1,620</sub>	Community Education	Childhood Obesity	<b>Evaluation</b>
Indian Health Council, Inc.	County	Clinics (non-government); 1 Garden; 1 Head Start; 2 Health Care Facilities (non-government); 7 Indian Tribal Organizations; 1 Other Preschool or Daycare (not Head Start); 10 Private Homes; 1 Early Headstart SoCal American Indian Resource	Female; 42% Male; Children and Adults		Events; Nutrition Education Classes; Print Media	Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact
County Health Services Agency	Stanislaus County	Frograms; 3 Community-Based Organizations; 3 Faith/Churches; 2 Farmers' Markets; 2 Food Stamp Offices; 10 Head Start; 7 Healthy Start; 3 Other Preschools or Daycares (not Head Start); 1 Public Health Department; 49 Schools (K-12); 5 Senior Centers; 2 WIC Sites	Female; 15% Male; Children and Adults	800	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Radio; Training/workshop/ conference	Breast-feeding; Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process

State Summary of L	ocal Projects.						
104. Tulare County	Tulare Delive	ry Locations	60% Au	dienc <sub>e,461</sub>	Advisory Council/Task	Breast-feeding:	Evaluation
Health and Human Services Agency (WIC Program)	County	Based Organizations; 1 Community Clinic (non-government); 1 Community Youth Organization; 2 Faith/Churches; 19 Food Closets/Pantries/B anks; 5 Healthy Start; 1 Indian Tribal Organization; 1 Park, Recreation Center; 44 Schools (K-12); 8 WIC Sites; 1 Community Services Employment Training, Inc. (CSET); 1 Orosi Adult School	Female; 40% Male; Children and Adults		Force; Community Education Events; Nutrition Education Classes; Nutrition Education Research/Evaluation; Print Media; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Impact
Office of Education	Tulare County	7 Afterschool Programs; 3 Farmers' Markets; 6 Gardens; 2 Grocery Stores; 38 Schools (K-12)	Female; 52% Male; Children and Adults	30,944	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Training/workshop/ conference	Cooking Skills; Dietary Quality; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact

106. Viget Name	Mendocino	ry <sub>4</sub> Locations	51% <b>Au</b> d	dience <sub>7,500</sub>	Community Education	Childhood Obesity	Evaluation
School District	County	Programs; 4 Head Start; 39 Schools (K-12)	Female; 49% Male; Children	17,500	Events; Internet/Web Sites; Nutrition Education Classes; Radio; Training/workshop/ conference	Prevention; Cooking Skills; Fruit & Vegetables; Physical Activity Promotion	Impact
107. United Indian Health Services	Humboldt County	2 Afterschool Programs; 1 Farmers' Market; 1 Garden; 4 Head Start; 1 Indian Tribal Organization; 10 Private Homes; 3 Schools (K-12); 2 Soup Kitchens/ Congregate Meal Sites	50% Female; 50% Male; Children and Adults	375	Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Radio; Culturally Appropriate Nut. Ed	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Traditional Foods for American Indians	Process
California Cooperative Extension, Alameda County (Child and Youth Nutrition Program)	Alameda County	7 Gardens; 13 Other Preschools or Daycares (not Head Start)	48% Female; 52% Male; Children and Adults	3,575	Advisory Council/Task Force; Community Education Events; Nutrition Education Classes; Radio; Training/workshop/ conference	Cooking Skills; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact

109. University of	Alameda Delive	ry <sub>1</sub> Locations	80% Au	dience <sub>280</sub>	Advisory Council/Task	Breast-feeding:	Evaluation Formative:
California Cooperative Extension, Alameda County (Family and Consumer Services)	County	Based Organizations; 3 Community Clinics (non-government); 2 Faith/Churches; 2 Farmers' Markets; 5 Food Closets/Pantries/B anks; 2 Food Stamp Offices; 4 Grocery Stores; 2 Head Start; 2 Healthy Start; 3 Housing Projects; 1 Indian Tribal Organization; 2 Other Preschools or Daycares (not Head Start); 150 Private Homes; 1 Senior Center; 2 WIC Sites; 2 Job Readiness Center	Female; 20% Male; Adults		Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation; Promotion of Healthy Communities; Training/workshop/conf erence; Peer reviewed journals/magazines	Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Process; Impact
California Cooperative Extension, Los Angeles County	Los Angeles County	25 Afterschool Programs; 35 Community-Based Organizations; 5 Community Youth Organizations; 3 Farmers' Markets; 3 Gardens; 7 Head Start; 1 Healthy Start; 10 Housing Projects; 3 shelter	85% Female; 15% Male; Children and Adults	458	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Radio; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process; Impact

State Summary of Local Projects.							
1 Project Name	Fresno Delive	ry <sub>5</sub> Locations	<sub>50%</sub> Au	dience <sub>500</sub>	Advisory Council/Task	Content Dietary Quality, Fruit &	<b>Evaluation</b>
California, Berkeley	County	Based Organizations	Female; 50% Male; Children and Adults		Force; Community Education Events; Nutrition Education Classes; Nutrition Education Research/Evaluation	Vegetables; Healthier Eating, general	Process; Impact
California, San Diego (Division of Community Pediatrics)	San Diego County	7 Schools (K-12)	47% Female; 53% Male; Children and Adults	2,080	Community Education Events; Internet/Web Sites; Nutrition Education Classes; Nutrition Education Research/Evaluation	Childhood Obesity Prevention; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Process; Impact
Century Learning Center	Los Angeles County	1 Afterschool Program; 1 Community-Based Organization; 1 Grocery Store; 1 Head Start; 1 School (K-12)	40% Female; 60% Male; Children and Adults	3,500	Community Education  Events; Nutrition  Education Classes;  Promotion of Healthy  Communities;  Training/workshop/  conference	Childhood Obesity Prevention; Cooking Skills; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion	Formative; Process; Impact

State Summary of L	State Summary of <u>Local Projects.</u>							
1 Project Name	Ventura <b>Delive</b>	ry Locations	<sub>60%</sub> Au	diencę <sub>,217</sub>	Advisory Council/Task	Childhood Obesity	Evaluation	
County Public Health Department	County	Based Organizations; 2 Community Clinics (non-government); 5 Faith/Churches; 15 Head Start; 5 Health Care Facilities (non-government); 3 Housing Projects; 3 Other Preschools or Daycares (not Head Start); 2 Parks, Recreation Centers; 1 PublicHealth Department; 2 WIC Sites; 5 Worksites; 5 Neighborhood for Learning Centers	Female; 40% Male; Children and Adults		Force; Community Education Events; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Prevention; Cooking Skills; Dietary Quality; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors		
115. Ventura	Ventura	5 Afterschool	48%	3,735	Community Education	Fruit & Vegetables;	Process;	
Unified School District	County	Programs; 1 Farmers' Market; 9 Gardens; 5 Other Preschools or Daycares (not Head Start); 1 Public Health Department; 10 Schools (K-12)	Female; 51% Male; Children and Adults		Events; Nutrition Education Classes; Training/workshop/conf erence; Other	Healthier Eating, general	Impact	
116. Visalia Unified	Tulare	3 Afterschool	49%	5,493	Advisory Council/Task	Fruit & Vegetables;	Process;	
School District	County	Programs; 19 Schools (K-12)	Female; 50% Male; Children and Adults		Force; Nutrition Education Classes	Healthier Eating, general; Physical Activity Promotion	Impact	

Project Name	Delive	ry Locations	Au	dience	Methods	Content	Evaluation
117. West Contra Costa Unified School District	Contra Costa County	3 Afterschool Programs; 2 Gardens; 25 Schools (K-12)	50% Female; 50% Male; Children and Adults	4,163	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Print Media; Promotion of Healthy Communities; Retail Promotion; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Farmers' market promotion; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process
118. Yolo County Health Department	Yolo County	2 Afterschool Programs; 2 Head Start; 2 Healthy Start; 2 Housing Projects; 2 Other Preschools or Daycares (not Head Start); 4 Parks, Recreation Centers; 9 Schools (K-12); 2 WIC Sites; 4 Health Fairs; 2 Migrant Camps	90% Female; 10% Male; Children and Adults	1,762	Advisory Council/Task Force; Community Education Events; Internet/Web Sites; Nutrition Education Classes; Promotion of Healthy Communities; Training/workshop/ conference	Childhood Obesity Prevention; Cooking Skills; Dietary Quality; Food Safety; Fruit & Vegetables; Healthier Eating, general; Physical Activity Promotion; Shopping Behaviors	Formative; Process
otal of Contacts				1,530,379			

# **1b) Network Local Projects Total Impressions Summary**

Local Project Name	Total
·	Impressions
ABC Unified School District	10,500
Alameda County Health Care Services Agency	132,200
Alameda County Office of Education	4,700
Alameda County Office of Education Coalition	1,000,000
Alhambra Unified School District	132,343
Alisal Union School District	64,100
Berkeley Unified School District	200,000
City of Berkeley Department of Health and Human Services	26,500
California Association of Food Banks	146,735
California Department of Education	11,300
California Project LEAN	8,400
California Rural Indian Health Board, Inc.	12,325
California State University, Chico	70,000
Calistoga Joint Unified School District	334,419
Central Valley Health Network	2,085,000
Children's Council of San Francisco	1,250
Community Alliance with Family Farmers	22,000
Community Services Planning Council, Inc.	1,015
Community Services Unlimited	445
Compton Unified School District	10,000
Contra Costa County Health Services	146,120
Council of Orange County, St. Vincent de Paul	17,400
Del Norte Unified School District	2,020,191
Downey Unified School District	1,250,000
City of Duarte Parks and Recreation Department	1,895
East Bay Asian Youth Center	7,700
East Los Angeles College	4,184
Ecology Center	24,810
El Monte City School District	512,500
Elk Grove Unified School District	462,060
Environmental Education Council of Marin	7,500
Farmersville Unified School District	1,100
Food Bank of Yolo County	650
Fresno County Office of Education	18,383
Fresno Unified School District	170,000
Greenfield Union School District	10,600
Hawthorne School District	900,000
Health Education Council	205,000
Healthy Cities	12,150
Humboldt County Office of Education	57,000
Huntington Beach Union High School District	108,330
Imperial County Public Health Department	5,500
Kern County Department of Public Health	194,500
Kernville Union School District	26,200
Lamont School District	10,600
Long Beach Unified School District	63,500
City of Long Beach Department of Public Health	16,000
Los Angeles Community Action Network	3,500

# **1b) Network Local Projects Total Impressions Summary**

Local Project Name	Total
	Impressions
Los Angeles County Office of Education	29,376
Los Angeles Trade Technical College	47,499
Los Angeles Unified School District	37,900,000
Madera County Children and Families Commission - First 5	6,518
Madera Unified School District	4,240
Manila Community Services District	13,800
Marin County Department of Health and Human Services	185,474
Merced County Office of Education	332,700
Monrovia Unified School District	265,729
City of Montclair	29,160
Montebello Unified School District	197,300
Monterey County Department of Public Health	268,115
Mount Diablo Unified School District	3,107
Native American Health Center	16,000
Newport-Mesa Unified School District	217,550
Occidental College, Center for Food and Justice	636
Orange County Department of Education	184,100
Orange County Health Care Agency	823,255
Orange County Superintendent of Schools	270,000
Orange Unified School District	28,000
Pasadena Unified School District	109,950
City of Pasadena Public Health Department	9,350
People's Grocery	12,510
Placer County Department of Health and Human Services	13,140
Riverside County Health Services Agency	106,840
Rosemead School District	12,747
Sacramento County Department of Health & Human Services	13,500
San Benito County Health & Human Services Agency	4,300
San Bernardino County Department of Public Health	120,355
San Bernardino Parks and Recreations and Community Services	5,085
San Francisco Unified School District	330,000
City and County of San Francisco, Department of Public Health	1,538,000
San Joaquin County Public Health Services	3,300
San Mateo County Health Services Agency	58,500
Santa Ana Unified School District	173,000
Santa Barbara County Public Health Department	24,000
Santa Clara County Public Health Department	1,000,500
Santa Clarita Valley Food Services Agency	10,500
Santa Cruz City School District	34,570
Second Harvest Food Bank of Santa Cruz and San Benito Counties	13,800
Shasta County Office of Education	4,404,046
Shasta County Public Health Department	
•	10,701,500
Solano County Health and Social Services Department	48,886 13,773
Sonoma County Department of Health Services	
Sonoma State University	2,000
Southern Indian Health Council, Inc.	4,415
Stanislaus County Health Services Agency  Trust for Concernation Innovation	26,900
Trust for Conservation Innovation	880

# **1b) Network Local Projects Total Impressions Summary**

Local Project Name	Total
	Impressions
Tulare County Health and Human Services Agency	65,000
Tulare County Office of Education	100,000
Ukiah Unified School District	181,000
United Indian Health Services	7,400
University of California Cooperative Extension, Alameda County	10,567
University of California Cooperative Extension, Alameda County	28,800
University of California, Berkeley	750
University of California, San Diego	251,646
University of Southern California	1,270
Urban Resource Systems, Inc.	7,795
Vaughn Next Century Learning Center	3,450
Ventura County Public Health Department	9,500
Ventura Unified School District	20,000
Visalia Unified School District	17,000
West Contra Costa Unified School District	212,700
Yolo County Health Department	1,780
Grand Total of All Projects	71,068,169

### 2) Network Social Marketing Campaigns Media – Advertising & PR

California Nutrition Network (Network) for Healthy, Active Families October 1, 2005 – September 30, 2006

Network Social Marketing Project Name (State-level)	Total Unduplicated Contacts (Estimate Only)	Total Impressions (Estimate Only)
Advertising - Coverage		601,463,300
PR - Coverage		48,657,347
<b>Grand Total of Contacts</b>	8,134,500	650,120,647

#### 2a) Network Media (Advertising)–Summary of Impressions

Advertising Activity	Number of Media Outlets	Media Impressions (Estimated Only)
State Summary of Advertising (Media)-Description/Type		<185% FPL
Television		
Doctor (English), multi-cultural target, adult 18+ impressions. Bakersfield, Fresno, Los Angeles, Palm Springs and Sacramento.	31 stations	39,805,400
Doctor (Spanish), adult 18+ impressions. Bakersfield, Fresno, Los Angeles, Monterey, Palm Springs and San Diego.	22 stations	43,776,000
Teacher (English), multi-cultural target, adult 18+ impressions. Bakersfield, Fresno, Los Angeles, Palm Springs and Sacramento.	31 stations	26,536,900
Teacher (Spanish), adult 18+ impressions. Bakersfield, Fresno, Los Angeles, Monterey, Palm Springs and San Diego.	22 stations	29,184,000
TV Sub-Total		139,302,300
Radio		
Doctor (Spanish), adult 18+ impressions. Bakersfield, Fresno, Los Angeles, Monterey, Palm Springs and San Diego.	30 stations	18,232,700
Teacher (Spanish), adult 18+ impressions. Bakersfield, Fresno, Los Angeles, Monterey, Palm Springs and San Diego.	30 stations	18,232,700
Radio Sub-Total		36,465,400
Out of Home	I	
Doctor (English), multi-cultural target, 8-sheets and 30-sheet outdoor boards and lunch trucks. Adult 18+impressions. Bakersfield, Fresno, Los Angeles, Palm Springs, Sacramento and San Francisco.	2,962 faces	348,232,000
Doctor (Spanish), 8-sheets and 30-sheet outdoor boards and lunch trucks. Adult 18+ impressions. Bakersfield, Fresno, Los Angeles, Palm Springs, San Diego and San Francisco.	1,196 faces	77,463,600
Out of Home Sub-Total		425,695,600
TOTALS		601,463,300
People of Network Advertising Activities Advertising includes any pe		

Reach of Network Advertising Activities - Advertising includes any paid or public service placement that has a commercial look and does not contain editorial material. It includes PSAs for radio, TV, paid news print advertising, and outdoor placements such as billboards and transit postings.

### 2b) Network Media (PR)-Summary of Impressions

Public Relations activities are things a program does to generate free news coverage of program activities or issues a program is trying to highlight such as press releases, media tours, and interviews.

October 1, 2005 - September 30, 2006 (<185% FPL)

Public Relations Activity State Summary of PR (Media) - Type	Number of Media Outlets	Media Impressions (Estimated Only)
TV PR Coverage	18 Segments	2,099,232
Radio PR Coverage	487 Segments	24,863,080
Print PR Coverage	101 Articles	21,695,035
Online PR Coverage	149 Articles	n/a
TOTAL	755 Articles & Segments	48,657,347

## 3) RNN/5 A Day Campaigns – Contact Summary

Nutrition Network (*Network*) for Healthy, Active Families October 1, 2005 – September 30, 2006

RNN/5 A Day Campaigns – Project Names	Total Unduplicated Contacts (Estimate Only)	Total Impressions (Estimate Only)
African American Campaign	278,028	834,085
Latino Campaign	534,735	1,604,205
Power Play!	231,300	1,616,875
Retail Program	126,991	10,749,200
<b>Grand Total of Contacts</b>	1,171,054	14,804,365

## 3a) 5 A Day Campaigns Contacts Summary

#### **Network Nutrition Education Report Summary**

RNN/5 A Da	ay Campaigns	s - Contacts						
Title	Loca	ation		Audience			Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Unduplicated Contacts (estimated)	Total Impressions (estimated)	Primary Activities  (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	Type* and Status
1. African- American	Bay Area, Central Valley, Desert Sierra, Gold Country, Los Angeles, and San Diego Regions	12 months	FSNE eligible African American adults, aged 18- 54 years, and their families	278,028		Faith-based education; nutrition education at festivals; supermarket and neighborhood grocery store promotions; media and public relations; direct health service providers, community agencies; and low- income housing units.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
2. Latino	Bay Area, Central Coast, Central Valley, Desert Sierra, Gold Coast, Gold Country, Los Angeles, Orange County, and San Diego Regions	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	534,735	, ,	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies; supermarket and neighborhood grocery store promotions, media and public relations	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

Title	Loca	ation		Audience		Methods	Content	Evaluation
3. Power Play	All of California		9- to 11-year-old children from FSNE eligible families/ communities	231,300	1,616,875	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process
4. Retail	All of California		FSNE eligible Adult women with school- aged children	126,991	10,749,200	Point-of-purchase materials (posters, channel insert strips); instore recipe booklets and recipe cards; CD-ROM containing advertising copy, graphics. Health tips, and nutrition information. Food Demonstrations, store tours, and retail-sponsored community events to support merchandising efforts.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
5. Total for All Campaigns	All of California			1,171,054	14,804,365			

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## **Bay Area Summary**

Title	Loca	tion	Audie	ence	Methods	Content	Evaluation
	Geographic Area	Length of		Total	Primary Activities		Type*
Name of Campaign	(Statewide or counties reached)	Campaign (months)	Targeted Audience	Impressions (estimated)	(campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	and Status
1. African-American	Bay Area	12 months	FSNE eligible African American adults, aged 18- 54 years, and their families	63,777	ACS Body and Soul faith- based education; nutrition education at festivals; supermarket and neighborhood grocery store promotions; media and public relations; direct health service providers, community agencies; and low-income housing units.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
2. Latino	Bay Area	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	137,590	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies; supermarket and neighborhood grocery store promotions, media and public relations	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

3. Power Play	Bay Area	12 months	9- to 11-year- old children	61,992	School and youth	Eat the	Process
			from FSNE eligible families/ communities		and public relations; events	recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Flocess
*For evaluation type, indicate Fo	Bay Area	12 months	FSNE eligible Adult women with school- aged children	859,936	store recipe booklets and recipe cards; CD-ROM containing advertising	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

2 - Bay Area

### **Central Coast Summary**

Title	Locat	tion	Audi	ence	Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	Primary Activities (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	Type* and Status
1. African-American	Central Coast	N/A	N/A	N/A	N/A	N/A	N/A
2. Latino	Central Coast	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	58,619	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies; supermarket and neighborhood grocery store promotions, media and public relations	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
3. Power Play	Central Coast	12 months	9- to 11-year- old children from FSNE eligible families/ communities	44,841	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process
4. Retail	Central Coast	12 months	FSNE eligible Adult women with school- aged children	752,444	store recipe booklets and recipe cards; CD-ROM containing advertising	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## **Central Valley Summary**

3b) RNN/5 A Day Car	npaigns - Con	ntacts					
Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	Primary Activities (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	Type* and Status
1. African-American	Central Valley	12 months	FSNE eligible African American adults, aged 18- 54 years, and their families	19,150	ACS Body and Soul faith- based education; nutrition education at festivals; supermarket and neighborhood grocery store promotions; media and public relations; direct health service providers, community agencies; and low-income housing units.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
2. Latino	Central Valley	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	240,676	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies; supermarket and neighborhood grocery store promotions, media and public relations	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

Title	Locat	ion	Audie	ence	Methods	Content	Evaluation
3. Power Play	Central Valley	12 months	9- to 11-year- old children from FSNE eligible families/ communities	95,334	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process
4. Retail	Central Valley	12 months	FSNE eligible Adult women with school- aged children	1,612,380	Point-of-purchase materials (posters, channel insert strips); instore recipe booklets and recipe cards; CD-ROM containing advertising copy, graphics. Health tips, and nutrition information. Food Demonstrations, store tours, and retailsponsored community events to support merchandising efforts.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## **Desert Sierra Summary**

Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	Primary Activities (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s) Eat the	Type*
1. African-American	Desert Sierra	12 months	FSNE eligible African American adults, aged 18- 54 years, and their families	98,970	ACS Body and Soul faith-based education; nutrition education at festivals; supermarket and neighborhood grocery store promotions; media and public relations; direct health service providers, community agencies; and low-income housing units.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
2. Latino	Desert Sierra	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	225,236	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies; supermarket and neighborhood grocery store promotions, media and public relations	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
3. Power Play	Desert Sierra	12 months	9- to 11-year- old children from FSNE eligible families/ communities	130,749	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process
4. Retail	Desert Sierra	12 months	FSNE eligible Adult women with school- aged children	1,074,920	Point-of-purchase materials (posters, channel insert strips); instore recipe booklets and recipe cards; CD-ROM containing advertising copy, graphics. Health tips, and nutrition information. Food Demonstrations, store tours, and retailsponsored community events to support merchandising efforts.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## **Gold Coast Summary**

Title	Loca	tion	Audi	ence	Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	Primary Activities (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	Type*
1. African-American	Gold Coast	N/A	N/A	N/A	N/A	N/A	N/A
2. Latino	Gold Coast	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	82,885	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies; supermarket and neighborhood grocery store promotions, media and public relations	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
3. Power Play	Gold Coast	12 months	9- to 11-year- old children from FSNE eligible families/ communities	341,147	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process

Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
4. Retail	Gold Coast	12 months	FSNE eligible Adult women with school- aged children	859,936	materials (posters, channel insert strips); in- store recipe booklets and recipe cards; CD-ROM containing advertising		Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## **Gold Country Summary**

Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	Primary Activities (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	Type*
1. African-American	Gold Country	12 months	FSNE eligible African American adults, aged 18- 54 years, and their families	121,920	ACS Body and Soul faith- based education; nutrition education at festivals; supermarket and neighborhood grocery store promotions; media and public relations; direct health service providers, community agencies; and low-income housing units.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
2. Latino	Gold Country	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	127,976	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies;	Eat the recommended amount of fruits and vegetables and enjoy physical activity	Process

Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
3. Power Play	Gold Country	12 months	9- to 11-year- old children from FSNE eligible families/ communities	174,199	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process
4. Retail	Gold Country	12 months	FSNE eligible Adult women with school- aged children	644,952	Point-of-purchase materials (posters, channel insert strips); instore recipe booklets and recipe cards; CD-ROM containing advertising copy, graphics. Health tips, and nutrition information. Food Demonstrations, store tours, and retailsponsored community events to support merchandising efforts.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## **Los Angeles Summary**

Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	Primary Activities (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	Type*
1. African-American	Los Angeles	12 months	FSNE eligible African American adults, aged 18- 54 years, and their families	459,092	ACS Body and Soul faith- based education; nutrition education at festivals; supermarket and neighborhood grocery store promotions; media and public relations; direct health service providers, community agencies; and low-income housing units.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
2. Latino	Los Angeles	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	375,000	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies; supermarket and neighborhood grocery store promotions, media and public relations	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
3. Power Play	Los Angeles	12 months	9- to 11-year- old children from FSNE eligible families/ communities	170,841	organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process
4. Retail	Los Angeles	12 months	FSNE eligible Adult women with school- aged children	1,934,856	containing advertising		Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## **North Coast Summary**

Title	Loca	tion	Audi	ence	Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	Primary Activities (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	Type*
1. African-American	North Coast	N/A	N/A	N/A	N/A	N/A	N/A
2. Latino	North Coast	N/A	N/A	N/A	N/A	N/A	N/A
3. Power Play	North Coast	12 months	9- to 11-year- old children from FSNE eligible families/ communities	382,899	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process

Title	Locat	tion	Audie	ence	Methods	Content	Evaluation
4. Retail	North Coast	12 months	FSNE eligible Adult women with school- aged children	429,968	materials (posters, channel insert strips); in- store recipe booklets and recipe cards; CD-ROM containing advertising		Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## **Orange County Summary**

Title	Locat	tion	Audi	ence	Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	Primary Activities (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	Type* and Status
1. African-American	Orange County	N/A	N/A	N/A	N/A	N/A	N/A
2. Latino	Orange County	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	180,735	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies; supermarket and neighborhood grocery store promotions, media and public relations	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
3. Power Play	Orange County	12 months	9- to 11-year- old children from FSNE eligible families/ communities	87,478	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process

Title	Loca	tion	Audie	ence	Methods	Content	Evaluation
4. Retail	Orange County	12 months	FSNE eligible Adult women with school- aged children	967,428	Point-of-purchase materials (posters, channel insert strips); instore recipe booklets and recipe cards; CD-ROM containing advertising copy, graphics. Health tips, and nutrition information. Food Demonstrations, store tours, and retailsponsored community events to support merchandising efforts.		Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## San Diego Summary

Title	Locat	tion	Audience		Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	bus wraps, point of sale advertising, etc.)	Key Message(s)	Type*
1. African-American	San Diego	12 months	FSNE eligible African American adults, aged 18- 54 years, and their families	71,176	ACS Body and Soul faith- based education; nutrition education at festivals; supermarket and neighborhood grocery store promotions; media and public relations; direct health service providers, community agencies; and low-income housing units.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process
2. Latino	San Diego	12 months	FSNE eligible Latino adults, aged 18-54 years, and their families	175,488	Nutrition education at farmers'/flea markets, Latino festivals, direct health service provider organizations and community agencies; supermarket and neighborhood grocery store promotions, media and public relations	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

Title	Loca	tion	Audie	ence	Methods	Content	Evaluation
3. Power Play	San Diego	12 months	9- to 11-year- old children from FSNE eligible families/ communities	73,837	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process
4. Retail	San Diego	12 months	FSNE eligible Adult women with school- aged children	1,397,396	Point-of-purchase materials (posters, channel insert strips); instore recipe booklets and recipe cards; CD-ROM containing advertising copy, graphics. Health tips, and nutrition information. Food Demonstrations, store tours, and retailsponsored community events to support merchandising efforts.	Eat the recommended amount of fruits and vegetables and enjoy physical activity every day	Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## **Sierra Cascade Summary**

Title	Location		Audi	ence	Methods	Content	Evaluation
Name of Campaign	Geographic Area (Statewide or counties reached)	Length of Campaign (months)	Targeted Audience	Total Impressions (estimated)	Primary Activities (campaign materials design, radio PSAs, bus wraps, point of sale advertising, etc.)	Key Message(s)	Type* and Status
1. African-American	Sierra Cascade	N/A	N/A	N/A	N/A	N/A	N/A
2. Latino	Sierra Cascade	N/A	N/A	N/A	N/A	N/A	N/A
3. Power Play	Sierra Cascade	12 months	9- to 11-year- old children from FSNE eligible families/ communities	53,558	School and youth organization activities; retail promotions; media and public relations; events	Eat the recommended amount of fruits and vegetables and get at least 60 minutes of physical activity every day	Process

Title	Loca	tion	Audie	ence	Methods	Content	Evaluation
4. Retail	Sierra Cascade	12 months	FSNE eligible Adult women with school- aged children	214,984	Point-of-purchase materials (posters, channel insert strips); instore recipe booklets and recipe cards; CD-ROM containing advertising copy, graphics. Health tips, and nutrition information. Food Demonstrations, store tours, and retailsponsored community events to support merchandising efforts.		Process

<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

## CALIFORNIA FOOD STAMP NUTRITION EDUCATION PROGRAM (FSNEP)

# FINAL REPORT

(November 27, 2006)

# FEDERAL FISCAL YEAR 2005/2006

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#### INTRODUCTION

The UC – California Food Stamp Nutrition Education Program (FSNEP) was implemented from October 1, 2005 to September 30, 2006 through a joint agreement among the United States Department of Agriculture (USDA) Food and Nutrition Service, the California Department of Social Services (CDSS) Food Programs Branch, and the University of California Cooperative Extension. These agencies provided funding and program staff, both educational, administrative, and general support staff. In addition, many local agencies and groups collaborated by encouraging their recipients to participate in FSNEP, by providing meeting spaces, and by allowing volunteer extenders (such as school teachers) to be trained to deliver nutrition education.

For Federal Fiscal Year 2005/2006(FFY 06), 41 counties (27 Adult program units and 38 Youth program units) implemented FSNEP. (Participating counties are marked on the California map in Appendix B.)

The FSNEP State Office, within the Nutrition Department on the University of California Davis Campus, continued to provide overall administrative and management oversight. The Principal Investigator provided the leadership and expertise for program development and program evaluation as well as overall leadership. County-based Cooperative Extension Home Advisors and Youth Advisors provided local management of FSNEP program delivery. The FSNEP State Office provided personnel, fiscal, data collection, and general operational support. The Youth County Liaison provided general coordination for the Youth Programs.

#### I. FSNEP PARTICIPATION

A modified version of the computerized Expanded Food and Nutrition Education Program (EFNEP) Evaluation and Reporting System (ERS) was developed to support FSNEP data collection and summarization. Both Adult and Youth data components are included in ERS. Data was collected on enrolled Adult Food Stamp recipients by a Family Record Form. Demographic information (ethnicity, gender, place of residence and ages) was collected on program participants at time of enrollment on other standardized forms. Additionally, ERS provided demographic information on Youth enrollment (ethnicity, gender, and ages).

Evaluation instruments used by many counties were a USDA-California Food Behavior Checklist (FBC) and a FSNEP Family Record.

A major investment of time by Home Advisors/Youth Advisors and Nutrition Education Assistants/Youth Assistants was spent in the recruitment and delivery of nutrition education programs to targeted clients (e.g. Food Stamp eligibles) using the approved Target Plan for recruitment and teaching. In addition, FSNEP staff worked closely with a variety of agencies in developing relationships. An important goal for FSNEP was determining the agencies and community locations, which would be most conducive to reaching and teaching Food Stamp recipients. These relationships varied from county to county. Also, counties with year-round schools found teachers responsive to Youth FSNEP, but other counties found it necessary to

develop other summer youth nutrition education program opportunities. Thus, there were some county-to-county variations in the magnitude of this year's implementation.

Table A is a summary report of all enrolled, graduated and contacted participants in both Adult FSNEP Youth FSNEP and Collaboration Projects. For the Adult program a total of 6,653 participants were enrolled, received 4 to 6 hours of nutrition education and graduated from the program. An additional, 2,589 program participants received the mini-workshop approach (2-4 hours of instructions at one meeting) and 1,024 participants received FSNEP training through the Home Study approach. The number of participants who were contacted and received a "brief" nutrition education intervention (i.e. demonstration at the county fair) was 54,088. An additional 44,922 received a newsletter. The Adult FSNEP program reached a total of 109,276 participants.

For the Youth Program, a total of 59,040 youths received lesson through trained extenders (usually teachers). In addition, 2,379 teachers were recruited and trained to deliver the FSNEP Youth Program.

The 16 Collaboration projects reached a total of 14,612 and Food Stamp eligible clients and an additional 3,423 contacts.

The grand total is: 188,730

TABLE A
Program Participation Summary

Adult FSNEP (27 Counties)	
"Enrolled" Participants	6,653
Mini-Workshop Participants	2,589
Home Study Participants	1,024
Contacts and Newsletters	54,088 + 44,922
Total	109,276

<b>Youth FSNEP</b> (38 Counties)	
Youth Participants	59,040
Teachers Recruited/Trained	2,379
Total	61,419

<b>Collaboration Projects</b> (16 Projects)	
Food Stamp Eligible Participants	14,612
Contacts	3,423
Total	18,035

Grand Total	188,730

#### A. Adult FSNEP Participation

In the 27 program units that delivered the Adult FSNEP program, 109,276 families participated in FSNEP nutrition education experiences during the program year (October 1, 2005 to September 30, 2006). Working with local agencies and organizations, groups were identified where the majority of the participants are Food Stamp recipients. Descriptive demographics (note: not all enrolled clients answered all questions on the Family Record) obtained on participation graduated families. Tables 1, 2, 6A, 6B report demographic information area enrolled clients.

Table 1 Racial/Ethnic and Gender Characteristics of Adult Participants (from Family Record)

Table 2 Place of Residence of Adult Participants (from Family Record)

TABLE 1
Racial/Ethnic and Gender Characteristics for
Adult Participants FFY 05/06

Race/Ethnicity	Female		Male		Total	
	Number	(Percent)	Number	(Percent)	Number	(Percent)
White	1891	28.4%	611	9.2%	2502	37.6%
Black	560	8.4%	200	3.0%	760	11.4%
Amer. Ind./Alask.	199	3.0%	60	0.9%	259	3.9%
Hispanic	2498	37.5%	265	4.0%	2763	41.5%
Asian/Pac. Is.	253	3.8%	116	1.7%	369	5.5%
Total	5401	81.2%	1252	18.8%	6653	100.0

TABLE 2
Place of Residence for
Adult Participants
FFY 05/06

Place	Number	Percent
Farm	55	.85%
Towns under 10,000 and rural non-farm	1616	25.02%
Towns and Cities 10,000 to 50,000 and	804	12.29%
their suburbs		
Suburbs of cities over 50,000	511	7.91%
Central cities over 50,000	3667	55.12%
Total	6653	100.0

#### B. Youth FSNEP Participation

Thirty-eight counties implemented the Youth component for FFY 05/06 serving 59,040 youth participants.

The following tables provide demographic information on both volunteers and youth participants:

Table 3	Racial/Ethnic and Gender Characteristics of Youth Participants (from ERS)
Table 4	Age Distribution of Youth Participants (from ERS)
Table 5	Place of Residence of Youth Participants (from ERS)
Table 6a	Number of Adult Clients Enrolled in other Federal Nutrition Programs
Table 6b	Distribution of Household Income as a Percent of Poverty Level for Adult Clients

TABLE 3
Racial/Ethnic and Gender Characteristics
of
Youth Participants

Race/Ethnicity	Female		Male		Total	
	Number	(Percent)	Number	(Percent)	Number	(Percent)
White	9437	16.2%	9865	16.9%	19302	33.1%
Black	2839	4.9%	2742	4.7%	5581	9.6%
Amer. Ind./Alask.	633	1.1%	558	1.0%	1188	2.0%
Hispanic	14219	24.4%	29957	51.4%	28476	48.8%
Asian/Pac. Is.	1884	3.2%	4395	7.5%	3759	6.4%
Total	29,019	49.8%	29,302	50.2%	58,321	100.0

TABLE 4
Age Distribution
Of
Youth Participants

Age Groupings	Number	Percent
Under Six	9,535	16.4%
Six to Eight years	20,456	35.3%
Nine to Twelve years	22,356	38.6%
Thirteen to Fifteen years	4,322	7.5%
Sixteen and older	1,280	2.2%
Total	57,991	100.0%

<u>TABLE 5</u> <u>Place of Residence of Youth Participants</u>

Place	Number	Percent
Farm	942	1.62%
Towns under 10,000 and rural non-farm	15,185	26.13%
Towns and Cities 10,000 to 50,000 and	13,247	22.80%
their suburbs		
Suburbs of cities over 50,000	3,869	6.66%
Central cities over 50,000	25,078	43.00%
Total	58,321	100.0%

All youth participants were targeted by eligible schools ( $\geq$ 50% of students enrolled in free and reduced-price school lunch program). Adult participants were targeted by eligible agency and community programs including Food Stamps, WIC and Head Start (Table 6A). All enrolled clients met the <130% Poverty Guideline (Table 6B).

Table 6A
Number of Adult Clients Enrolled in other Federal Nutrition Programs

Number of Adult Clients Enrolled in other Federal Nutrition Programs									
County	Food	Stamp	W	IC	Head Start				
	Number	%	Number	%	Number	%			
Alameda	124	49	97	38	22	9			
Amador/Calaveras	194	56	79	23	41	12			
Butte	77	94	8	10	21	26			
Contra Costa	220	90	91	37	13	5			
Fresno	108	58	100	54	16	9			
Imperial	86	70	29	24	0	0			
Los Angeles	90	84	83	78	75	70			
Monterey	33	73	18	40	0	0			
Placer	96	30	125	40	5	2			
Riverside	138	40	137	39	107	31			
San Diego	260	43	238	39	61	10			
San Fran/San Mateo	101	93	6	6	0	0			
San Joaquin	616	76	294	36	50	6			
San Luis Obispo	41	100	11	27	1	2			
Santa Barbara	207	100	97	47	21	10			
Santa Clara	137	47	102	35	10	3			
Shasta	278	61	164	36	47	0			
Solano	286	43	67	10	17	3			
Sonoma	189	60	51	16	5	2			
Trinity	219	37	249	42	51	9			
Tulare	102	40	199	79	69	27			
Tuolumne/Mariposa	62	95	20	31	14	22			
Ventura	44	42	39	38	22	21			
Yolo	8	10	20	25	3	4			
Total	3,716	55.37%	2,324	34.63%	671	10.00%			

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Table 6B
Distribution of Household Income as a Percent of Poverty Level for Adult Clients

County	<=	50%	51 -	75%	76 -	100%	101 -	- 125%		26 -	151 -	185%	>= 1	86%	Not S	pecified	Tot	al
		<del> </del>		t				<del>1</del>		0%		<del>1</del>		<del></del>		<del> </del>		<u> </u>
	Nbr	%	Nbr	%	Nbr	%	Nbr	%	Nbr	%	Nbr	%	Nbr	%	Nbr	%	Nbr	<b>%</b>
Alameda	221	87	11	4	9	4	7	3	1	0	3	1	1	0	2	1	255	100
Amador/Cala	60	17	42	12	43	12	29	8	24	7	22	6	26	7	102	29	348	100
veras																		
Butte	7	9	19	23	19	23	11	13	6	7	4	5	15	18	1	1	82	100
Contra Costa	11	5	8	3	3	1	1	0	0	0	0	0	0	0	221	91	244	100
Fresno	55	30	31	17	26	14	13	7	7	4	6	3	1	1	47	25	186	100
Imperial	0	0	1	1	0	0	0	0	0	0	0	0	0	0	122	99	123	100
Los Angeles	106	99	0	0	0	0	0	0	0	0	0	0	0	0	1	1	107	100
Monterey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	100	45	100
Placer	22	7	23	7	23	7	11	3	13	4	5	2	15	5	204	65	316	100
Riverside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	348	100	348	100
San Diego	1	0	3	0	0	0	2	0	2	0	0	0	1	0	599	99	608	100
San Fran/San	13	12	7	6	4	4	1	1	0	0	1	1	2	2	81	74	109	100
Mateo																		
San Joaquin	147	18	139	17	28	3	14	2	3	0	1	0	2	0	478	59	812	100
San Luis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	100	41	100
Obispo																		
Santa Barbara	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208	100	208	100
Santa Clara	60	21	52	18	18	6	18	6	17	6	3	1	0	0	121	42	289	100
Shasta	4	1	6	1	1	0	2	0	2	0	1	0	1	0	438	96	455	100
Solano	0	0	0	0	0	0	0	0	0	0	0	0	0	0	662	100	662	100
Sonoma	29	9	8	3	3	1	7	2	4	1	0	0	2	1	262	83	315	100
Trinity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	599	100	599	100
Tulare	55	22	46	18	67	26	32	13	21	8	15	6	8	3	9	4	253	100
Tuolumne/Ma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	100	65	100
riposa																		
Ventura	1	1	0	0	0	0	2	2	0	0	0	0	0	0	101	97	104	100
Yolo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	100	79	100
Total	792	11.9%	396	6.0%	244	3.7%	150	2.3%	100	1.5%	61	0.9%	74	1.1%	4836	72.7%	6653	100

#### ADULT FSNEP PROGRAM DESCRIPTION AND RESULTS

#### A. Curriculum

The FSNEP Nutrition Education Committee composed of FSNEP regional representatives (both Adult and Youth) continued to provide guidance on FSNEP curriculum and program delivery. The meetings focused on the review of both the Adult FSNEP Program Curriculum materials and the Youth FSNEP Program curriculum process. In addition, the Youth FSNEP/EFNEP Curriculum Committee oversaw the adaptation and the testing of Preschool materials for the FSNEP Youth Program.

The California FSNEP Adult program used the Michigan State **Eating Right is Basic** (1995) curriculum for basic nutrition information. In addition to this basic nutrition education, counties use these newer lessons, **Enhanced ERIB** (2002) and **Be Food Safe** (Kaiser, 2000). Dr. Lucia Kaiser trained staff on new guidelines and how to teach them in regional and at the statewide conferences in 2005. In 2006, the new "Healthy Families: curriculum was introduced to FSNEP staff. Currently, regional training in 6 locations is being implemented. In July 2005, Dr. Lucia Kaiser implemented a one-day workshop for all staff on focusing on My Pyramid at the FSNEP Annual Conference in Millbrae. All FSNEP staff participated in the My Pyramid workshop.

Demonstrations were well received by the recipients. Most counties used demonstrations as a way of illustrating lessons. In many counties, lessons on fruits and vegetables are taught at a variety of locations. Videotapes were also used to illustrate ideas from the lessons and to watch while people sampled from the food demonstrations.

Table 7 shows the program delivery method, lessons taught, and the types of evaluation used by each of the Adult FSNEP counties.

Home Study (or "Learn At Home" series) continues to be a means of delivering nutrition education to participants who cannot attend the group lessons. The first lesson on the Pyramid is taught face-to-face and evaluation information is collected by telephone interview. The materials contain 12-16 lessons and are sent in packages through the mail. A Spanish version was added to the curriculum in 1999. Table 8 shows the counties participating in Home Study.

In FFY 1998/99, the resource management program entitled, "Making Every Dollar Count" developed by Dr. Karen Varcoe, Riverside County was pilot-tested. This year the materials were used by most Adult counties. These materials contain six lessons on how to improve self-sufficiency.

			TABLE 7								
Alameda	Lesson	Lessons Taught and Types of Evaluation used by County									
Alameda	County	Program Delivery *	Lessons Taught **	Types of Evaluation ***							
Butte 5	<u> </u>	ļ									
Calaveras/Amador Contra Costa 2, 3 1-6, 18, 20 E Fresno 2 1-14, 15, 16, 18, 20, 22 E Imperial 2, 3 1, 2, 6, 9, 10, 11, 15, 18, 20 E Imperial 2, 3 1, 2, 6, 9, 10, 11, 15, 18, 20 E Imperial 2, 3 1, 2, 6, 9, 10, 11, 15, 18, 20 E Imperial 2, 3 1, 2, 6, 9, 10, 11, 15, 18, 20 E Imperial 2, 3 1, 2, 6, 9, 10, 11, 15, 18, 20 E Imperial 2, 3 1, 2, 6, 9, 10, 11, 15, 18, 20 E Imperial 2, 3 1, 3, 4, 5 I - 15, 17, 18 Imperial 2, 3 I - 15, 17, 18 Imperial 2, 3, 4, 5 I - 11, 15, 18 Imperial 3, 4, 5 Imperial 3, 4, 5 Imperial 4, 1, 1, 18 Imperial 5, 3, 4 Imperial 5, 3, 4 Imperial 6, 18, 20 Imperial 8, 21 Imperial 8, 22 Imperial 8, 21 Imperial 8, 21 Imperial 8, 21 Imperial 8,				<u> </u>							
Contra Costa				*							
Fresno 2 1-14, 15, 16, 18, 20, 22 E Imperial 2, 3 1, 2, 6, 9, 10, 11, 15, 18, 20 E Los Angeles 2, 3 1-15, 17, 18 B, C, F Monterey/SB/SC 2, 3 1-15, 17, 18 B, C, F Placer 2, 3, 4, 5 1-11, 15, 18 A, E Riverside 2, 3, 4 1-14, 17, 18 A, E Riverside 2, 3, 4 1-11, 15, 16, 18, 22 E San Diego 2, 3, 4 1-11, 15, 16, 18, 22 E San Joaquin 2, 3, 5 1-14, 15, 16, 17, 18 A, E Sant Luis Obispo 17, 18, 21 A, E Sant Barbara 1, 2, 3 1-14, 17, 18, 21 E Santa Clara 1, 2, 3, 4, 5 1-14, 15, 16, 18, 21 A, E Shasta/Tinity 2, 3, 4, 5 1-14, 15, 16, 18, 22 E Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 18 E Sonoma 2, 3, 5 1-14, 15, 16, 18, 18 E Sonoma 1, 2, 3, 4 1-14, 15, 16, 18, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 5 1-14, 15, 16, 18 E Solano 1, 2, 3, 5 1-14, 15, 16, 18 E Solano 1, 2, 3, 5 1-14, 15, 16, 18 E Solano 1, 2, 3, 5 1-14, 15, 16, 18 E Solano 1, 2, 3, 5 1-14, 15, 16, 18 E Solano 1, 2, 3, 5 1-14, 15, 16, 18 E Solano 1, 2, 3, 5 1-14, 15, 16, 18 E Solano 1, 2, 3, 5 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 16, 18 E Solano 1, 2, 3, 4 1-14, 15, 18, 1											
Imperial											
Los Angeles 2, 3 1-15, 17,18 B,C,E  Monterey/SB/SC 2, 3 1, 9,15, 16,18 E  Placer 2, 3, 4, 5 1-11, 15, 16, 18, 22 E  San Diego 2, 3, 4 1-11, 15, 16, 18, 22 E  San Joaquin 2, 3, 5 1-14, 15, 16, 17, 18 A,E  San Luis Obispo 17, 18, 21 A,E  SMYSF 2, 3, 4 1-14, 15, 18 A,E  Santa Barbara 1, 2, 3 1-14, 15, 18 A,E  Santa Clara 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E  Solato Clara 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E  Solato 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E  Solano 1, 2, 3, 4, 5 1-14, 15, 16, 18, 22 E  Solano 2, 3, 5 1-14, 15, 17, 18, 19, 22 E  Tulare 1, 2, 3, 4 1-14, 15, 16, 18, 22 E  Tulare 1, 2, 3, 4 1-14, 15, 16, 18, 22 E  Tulare 1, 2, 3, 4 1-14, 15, 16, 17, 18 E  Yentura 2, 3 1-14, 15, 16, 17, 18 E  Yentura 2, 3 1-14, 16, 18 E  **Program Delivery ***Content of Lessons Taught**  1=Individual (Series) 2-Making Most of Your 3-Month Most of Your											
Monterey/SB/SC	•	-									
Placer		-									
Riverside	-	<u> </u>									
San Diego         2, 3, 4         1-11,15,16,18,22         E           San Joaquin         2, 3, 5         1-14, 15, 16, 17,18         A,E           San Luis Obispo         17,18,21         A,E           SMVSF         2, 3, 4         1-14, 15, 18         A,E           Santa Barbara         1, 2, 3         1-14, 17,18,21         E           Santa Clara         1, 2, 3, 4, 5         1-14, 15, 16,18,21         A,E           Shasta/Trinity         2, 3, 4, 5         1-14, 15, 18,22         E           Solano         1, 2, 3, 4, 5         1-14, 15, 16, 18,22         E           Sonoma         2, 3, 5         1-14, 15, 16, 18,22         E           Tulare         1, 2, 3, 4         1-14, 15, 18         E           Ventura         2, 3, 5         1-14, 15, 16, 17, 18         E           Ventura         2, 3, 5         1-14, 16, 18         E           Ventura         2, 3, 5         18         E           Yelo				-							
San Joaquin   2, 3, 5											
San Luis Obispo											
SM/SF         2, 3, 4         1-14, 15, 18         A,E           Santa Barbara         1, 2, 3         1-14, 17, 18,21         E           Santa Clara         1, 2, 3, 4, 5         1-14, 15, 16, 18,21         A,E           Shasta/Trinity         2, 3, 4, 5         1-14, 15, 18, 18,22         E           Solano         1, 2, 3, 4, 5         1-14, 15, 16, 18,22         E           Sonoma         2, 3, 5         1-14, 15, 17, 18,19,22         E           Tulare         1, 2, 3, 4         1-14, 15, 16, 17, 18         E           Ventura         2, 3, 4         1-14, 15, 16, 17, 18         E           Ventura         2, 3, 5         1-14, 16, 18         E           Ventura         2, 3, 5         1-14, 16, 18         E           Ventura         2, 3, 5         18         E           Yolo         2, 3, 5         18         E           *Program Delivery         **Content of Lessons Taught         **Eendurght         **Eendurght           1=Individual (Series)         2=Making Most of Your         10=Fruits & Vegetables         FISH lessons, 2005)           3=Mini Workshops         Food Dollar         11=Bread & Cereals         19=Contract for Change           4=Home Study         3=Food Labels	-	2, 3, 3									
Santa Barbara		2 2 4									
Santa Clara											
Shasta/Trinity											
Solano				*							
Sonoma											
Tulare         1, 2, 3, 4         1-14, 15, 18         E           Tuolumne/Mariposa         2, 3, 4         1-14, 15, 16, 17, 18         E           Ventura         2, 3         1-14, 16, 18         E           Yolo         2, 3, 5         18         E           *Program Delivery         ** Content of Lessons Taught         E           1=Individual (Series)         1=Pyramid         9=For Goodness Sake!         18=Enhanced ERIB (contains           2=Group (Series)         2=Making Most of Your         10=Fruits & Vegetables         FISH lessons, 2005)           3=Mini Workshops         Food Dollar         11=Bread & Cereals         19=Contract for Change           4=Home Study         3=Food Labels         12=Feeding Your Baby         (Goal Setting)           5=Breakfast/Healthy         & Beans         21=Healthy Bones           Snacks         14=Fats, Lowering         22=Folate Lessons           6=Milk Groups         Cholesterol         7=Meal Planning         15=Be Food Safe           8=Keeping Food Safe         16=Kids Module         17=Making Every Dollar           **** Types of Evaluation         Count (Gateway)         **** Types of Evaluation           A=Pre/Post Tests         Beact Hour Food Recalls         Center of the Study											
Tuolumne/Mariposa         2, 3, 4         1-14, 15, 16, 17, 18         E           Ventura         2, 3         1-14, 16, 18         E           Yolo         2, 3, 5         18         E           *Program Delivery         ** Content of Lessons Taught         ** E           1=Individual (Series)         1=Pyramid         9=For Goodness Sake!         18=Enhanced ERIB (contains           2=Group (Series)         2=Making Most of Your         10=Fruits & Vegetables         FISH lessons, 2005)           3=Mini Workshops         Food Dollar         11=Bread & Cereals         19=Contract for Change           4=Home Study         3=Food Labels         12=Feeding Your Baby         (Goal Setting)           5=FISH         4=Eating Right & Light         13=Meat, Meat Products,         20=EFNEP Handouts           5=Breakfast/Healthy         & Beans         21=Healthy Bones           21=Healthy Bones         21=Healthy Bones           22=Folate Lessons         6=Milk Groups         Cholesterol           7=Meal Planning         15=Be Food Safe           8=Keeping Food Safe         16=Kids Module           **** Types of Evaluation         Count (Gateway)           **** Types of Evaluation         A=Pre/Post Tests           B=24 Hour Food Recalls         C=Descriptive Data											
Ventura 2, 3 1-14, 16,18 E Yolo 2, 3, 5 18 E  **Program Delivery											
Yolo 2, 3, 5 18 E  *Program Delivery ** Content of Lessons Taught  1=Individual (Series) 1=Pyramid 9=For Goodness Sake! 18=Enhanced ERIB (contains 2=Group (Series) 2=Making Most of Your 10=Fruits & Vegetables FISH lessons, 2005)  3=Mini Workshops Food Dollar 11=Bread & Cereals 19=Contract for Change 4=Home Study 3=Food Labels 12=Feeding Your Baby (Goal Setting)  5=FISH 4=Eating Right & Light 13=Meat, Meat Products, 5=Breakfast/Healthy & Beans 21=Healthy Bones 21=Healthy Bones 22=Folate Lessons  6=Milk Groups Cholesterol 7=Meal Planning 15=Be Food Safe 8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  *** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study											
*** Content of Lessons Taught  1=Individual (Series) 1=Pyramid 9=For Goodness Sake! 18=Enhanced ERIB (contains) 19=Group (Series) 2=Making Most of Your 10=Fruits & Vegetables FISH lessons, 2005) 11=Bread & Cereals 19=Contract for Change 12=Feeding Your Baby 12=Feeding Your Baby 13=Meat, Meat Products, 13=Meat, Meat Products, 13=Healthy Bones 14=Fats, Lowering 15=Be Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  **** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study											
1=Individual (Series)     1=Pyramid     9=For Goodness Sake!     18=Enhanced ERIB (contains       2=Group (Series)     2=Making Most of Your     10=Fruits & Vegetables     FISH lessons, 2005)       3=Mini Workshops     Food Dollar     11=Bread & Cereals     19=Contract for Change       4=Home Study     3=Food Labels     12=Feeding Your Baby     (Goal Setting)       5=FISH     4=Eating Right & Light     13=Meat, Meat Products,     20=EFNEP Handouts       5=Breakfast/Healthy     & Beans     21=Healthy Bones       Snacks     14=Fats, Lowering     22=Folate Lessons       6=Milk Groups     Cholesterol       7=Meal Planning     15=Be Food Safe       8=Keeping Food Safe     16=Kids Module       17=Making Every Dollar     Count (Gateway)       **** Types of Evaluation     Count (Gateway)       **** Types of Evaluation     Count (Gateway)	Yolo	2, 3, 5	18	E							
2=Group (Series) 2=Making Most of Your 3=Mini Workshops Food Dollar 11=Bread & Cereals 19=Contract for Change 4=Home Study 3=Food Labels 12=Feeding Your Baby (Goal Setting) 5=FISH 4=Eating Right & Light 5=Breakfast/Healthy & Beans 21=Healthy Bones Snacks 14=Fats, Lowering 22=Folate Lessons 6=Milk Groups Cholesterol 7=Meal Planning 15=Be Food Safe 8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway) **** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study	*Program Delivery	** Content of	Lessons Taught								
3=Mini Workshops Food Dollar 11=Bread & Cereals 19=Contract for Change 4=Home Study 3=Food Labels 12=Feeding Your Baby (Goal Setting) 5=FISH 4=Eating Right & Light 13=Meat, Meat Products, 20=EFNEP Handouts 5=Breakfast/Healthy & Beans 21=Healthy Bones Snacks 14=Fats, Lowering 22=Folate Lessons 6=Milk Groups Cholesterol 7=Meal Planning 15=Be Food Safe 8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  *** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study	1=Individual (Series)	1=Pyramid	9=For Goodness Sake!	18=Enhanced ERIB (contains							
3=Mini Workshops Food Dollar 11=Bread & Cereals 19=Contract for Change 4=Home Study 3=Food Labels 12=Feeding Your Baby (Goal Setting) 5=FISH 4=Eating Right & Light 13=Meat, Meat Products, 20=EFNEP Handouts 5=Breakfast/Healthy & Beans 21=Healthy Bones Snacks 14=Fats, Lowering 22=Folate Lessons 6=Milk Groups Cholesterol 7=Meal Planning 15=Be Food Safe 8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  *** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study	2=Group (Series)	2=Making Most of Your	10=Fruits & Vegetables	FISH lessons, 2005)							
5=FISH 4=Eating Right & Light 13=Meat, Meat Products, 20=EFNEP Handouts 5=Breakfast/Healthy & Beans 21=Healthy Bones Snacks 14=Fats, Lowering 22=Folate Lessons 6=Milk Groups Cholesterol 7=Meal Planning 15=Be Food Safe 8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  **** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study	3=Mini Workshops		11=Bread & Cereals	19=Contract for Change							
5=FISH 4=Eating Right & Light 13=Meat, Meat Products, 20=EFNEP Handouts 5=Breakfast/Healthy & Beans 21=Healthy Bones Snacks 14=Fats, Lowering 22=Folate Lessons 6=Milk Groups Cholesterol 7=Meal Planning 15=Be Food Safe 8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  **** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study	•	3=Food Labels	12=Feeding Your Baby	3							
5=Breakfast/Healthy & Beans 21=Healthy Bones Snacks 14=Fats, Lowering 22=Folate Lessons 6=Milk Groups Cholesterol 7=Meal Planning 15=Be Food Safe 8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  *** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study		4=Eating Right & Light									
Snacks 6=Milk Groups Cholesterol 7=Meal Planning B=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  *** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study											
6=Milk Groups Cholesterol 7=Meal Planning 15=Be Food Safe 8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  *** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study		•	14=Fats, Lowering	·							
7=Meal Planning 15=Be Food Safe 8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  *** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study		6=Milk Groups									
8=Keeping Food Safe 16=Kids Module 17=Making Every Dollar Count (Gateway)  *** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study											
17=Making Every Dollar Count (Gateway)  **** Types of Evaluation A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study											
Count (Gateway)  *** Types of Evaluation  A=Pre/Post Tests  B=24 Hour Food Recalls  C=Descriptive Data  D=Home Study		1 0 222 220									
**** Types of Evaluation  A=Pre/Post Tests  B=24 Hour Food Recalls  C=Descriptive Data  D=Home Study											
A=Pre/Post Tests B=24 Hour Food Recalls C=Descriptive Data D=Home Study	*** Types of Evaluation		(								
B=24 Hour Food Recalls C=Descriptive Data D=Home Study											
C=Descriptive Data D=Home Study		ls									
D=Home Study	Į.	-									
		:klist									

#### В. **Contacts and Newsletters**

A statewide Adult FSNEP State Office newsletter for FSNEP staff is being developed for quarterly distribution. A total of 99,010 individuals were contacted by FSNEP staff at agency sites and by a newsletter sent by the food stamp office.

#### C. **Home Study**

The "Learn At Home" series introduced last year in English and Spanish is now part of the program delivery in most counties. The Home Study approach was used to teach 1,024 food stamp clients in 11 counties (see Table 8).

### TABLE 8 **Number of Participants Completing** "Learn at Home Program" (Home Study)

<b>Counties</b>	Number of Participants
Alameda	0
Amador/Calaveras	0
Butte	0
Contra Costa	0
Fresno	39
Imperial	0
Los Angeles	0
Monterey	0
Placer	0
Riverside	18
San Diego	134
San Fran/San Mateo	109
San Joaquin	0
San Luis Obispo	0
Santa Barbara	0
Santa Clara	11
Shasta	26
Solano	87
Sonoma	0
Trinity	308
Tulare	253
Tuolumne/Mariposa	26
Ventura	13
Yolo	0
Total	1,024

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#### D. Adult FSNEP Evaluation Data and Results

All Adult FSNEP counties evaluated their programs. A variety of tools were used to evaluate different intervention strategies. Three types of evaluations were done: pre/post tests, dietary recalls and Food Behavior Checklist (FBC). This year 27 counties used the FBC to evaluate their Adult FSNEP Program. The ERS system that was adopted for FSNEP data includes the following analysis categories:

(1) Distribution of all responses for 15 questions; (2) Behavior change for 15 questions; (3) Improvement clusters for 15 questions; and (4) Summary of the number of practices that improved for food resources management practices; nutrition practices; and food safety practices.

The FSNEP State Office aggregates this data and provides a summary in the final report. Specific county data are used by each program to determine future programming changes. For example, if participants seem to be eating a better diet but still need assistance in resource management, the county program would change their program content to include resource management education.

Results from the FFY 2005/2006 Adult program were very positive. Several tables summarize dietary results from the Food Behavior Checklist (FBC) instrument.

Table 9
Number of enrolled families in the Adult
FSNEP Program using different delivery methods FFY 05/06

County	ERS Enrolled Participants	Mini- Workshop (Method II)	Home Study (Method III)	Contacts	Newsletter
Alameda	255	15		200	2
Amador/Calaveras	348	278		161	
Butte	82				
Contra Costa	244	170		2	
Fresno	186		39		
Imperial	123				
Los Angeles	107	31		76	2,000
Monterey	45			1,200	2,100
Placer	316	200		487	5,200
Riverside	348	60	18	203	
San Diego	608	34	134	75	
San Fran/San Mateo	109		109		
San Joaquin	812	286		160	
San Luis Obispo	41	13		58	346
Santa Barbara	208	123		104	1,248
Santa Clara	289	102	11		
Shasta	455		26	8,500	
Solano	662	233	87	2,200	34,000
Sonoma	315	79		77	
Trinity	599	188	308	39,920	
Tulare	253	745	253		
Tuolumne/Mariposa	65		26		1
Ventura	104		13	260	25
Yolo	79	32		405	
Total	6,653	2,589	1,024	54,088	44,922

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<u>Table 10A</u>

<u>Percentage Improvement in Dietary Behavior Changes as Measured by</u>
the Food Behavior Checklist in 27 Adult FSNEP Counties

County	County (N)	<u>Vegetable</u>	Fruit Variety	Drink Soda*	Eat Low Fat**	Remove Chielen
		<u>Variety</u>			<u>rat</u>	<u>Chicken</u> <u>Skin</u> **
Alameda	222	60%	65%	30%	72%	71%
Butte	81	46%	53%	41%	32%	27%
Calaveras/	01	40/0	3370	41/0	32/0	2770
Amador	39	26%	29%	13%	26%	32%
Contra Costa	29	36%	22%	37%	48%	30%
Fresno	182	37%	35%	38%	42%	27%
Imperial	108	47%	42%	54%	36%	17%
Los Angeles	39	85%	82%	51%	85%	69%
Monterey/Sa						
n	41	23%	17%	39%	18%	24%
Benito/Santa						
Placer	94	4%	43%	33%	53%	43%
Riverside	217	52%	48%	49%	53%	33%
San Diego	190	40%	47%	37%	32%	33%
San Joaquin	149	35%	46%	44%	41%	31%
SM/SF	16	69%	75%	31%	47%	56%
Santa Barbara	12	36%	9%	18%	64%	10%
Santa Clara	288	53%	56%	44%	57%	43%
Shasta	237	33%	32%	31%	26%	28%
Solano	96	44%	42%	28%	46%	31%
Sonoma	73	22%	33%	25%	31%	18%
Trinity	150	36%	40%	32%	40%	28%
Tulare	109	51%	45%	44%	40%	42%
Tuolumne/M	33	34%	33%	34%	38%	26%
ariposa						
Ventura	27	56%	36%	48%	40%	44%
Total (N):	2432		r	-		
Statewide	e Average	43%	43%	35%	43%	34%

<sup>\*</sup> Improvement in this practice is measured by a <u>decrease</u> in the number of times participants report this behavior.

<sup>\*\*</sup> Improvement in these practices reflect low fat eating practices (i.e. participants are reporting that they select foods that are <u>lower</u> in fat and participants are reporting that they remove the chicken skin before cooking chicken.

Table 10B
Diet Summary Imporvement in Food Consumption
(24 - Hour Food Recall Results) in 2 Counties

Number of Servings	Butte (N=81)	Los Angeles (N=28)
Pre - Bread & Cereal	8.0+/-2.6	4.1+/-2.2
Post - Bread & Cereal	8.3+/-2.7	5.0+/-0.5
Difference	0.3	1.1
Pre - Fruits	0.7+/-1.0	1.5+/-1.3
Post - Fruits	1.2+/-1.0	4.2+/-1.1
Difference	0.5	2.7
Pre - Vegetables	2.0+/-1.2	1.0+/-0.7
Post - Vegetables	2.0+/-1.7	3.9+/-1.0
Difference	0.0	2.9
Calcium - Dairy		
Pre	0.2+/-0.5	1.0+/-0.7
Post	1.4+/-0.6	3.0+/-0.6
Difference	0.2	2.0
Other		
Pre	0.3+/-0.6	0.7+/-0.8
Post	0.2+/-0.5	0.7+/-0.5
Difference	-0.1	0.0

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TABLE 11
Percentage Improvement in Food Safety Skills
as Measured by the Food Behavior Checklist
in 27 Adult FSNEP Counties

County	(N)	Foods Sit Out*	Thaw Foods*	Food Safety Practices Scale **
Alameda	222	21%	38%	43%
Butte	81	21	76	80
Calaveras/ Amador	39	11	34	39
Contra Costa	29	38	38	59
Fresno	182	24	36	51
Imperial	108	31	63	66
Los Angeles	39	72	87	95
Monterey/San Benito/Santa	41	39	60	68
Placer	94	31	56	61
Riverside	217	24	61	69
San Diego	190	23	47	56
San Joaquin	149	22	46	54
SM/SF	16	27	29	46
Santa Barbara	12	42	33	58
Santa Clara	288	33	65	73
Shasta	237	23	35	44
Solano	96	40	60	65
Sonoma	73	25	32	42
Trinity	150	26	55	61
Tulare	109	43	64	74
Tuolumne/ Mariposa	33	27	64	67
Ventura	27	26	59	70
Total (N):	2432			
Statewide A	verage	28%	49%	57%
di mod				

<sup>\*</sup> These indicators of food safety practices are measured by a <u>decrease</u> in the times food is left out of the refrigerator and <u>increases</u> in the times foods are thawed correctly.

<sup>\*\*</sup> Improved in these practices as measured by a combination of FBC questions that look at thawing and storing food properly.

TABLE 12
Percentage Improvement in "Self-Sufficiency" Indicators as measured by the Food Behavior Checklist in 27 Adult FSNEP Counties

		Percent	age Improvement		
County	(N)	Plan Meals	Compare Prices	Use Grocery	Food Management
			_	<u>List</u>	Practices Behavior
					Scale*
Alameda	222	62%	48%	63%	82%
Butte	81	57	31	46	84
Calaveras/	39	42	33	28	82
Amador					
Contra Costa	29	28	28	14	64
Fresno	182	41	33	40	74
Imperial	108	46	68	42	81
Los Angeles	39	85	77	77	97
Monterey/San	41	32	15	54	82
Benito/Santa					
Cruz					
Placer	94	42	34	45	78
Riverside	217	42	48	45	86
San Diego	190	49	38	38	79
San Joaquin	149	37	30	35	75
SM/SF	16	87	60	73	100
Santa Barbara	12	33	25	17	67
Santa Clara	288	51	47	55	87
Shasta	237	27	20	34	67
Solano	96	34	39	42	75
Sonoma	73	29	26	29	68
Trinity	150	50	35	41	79
Tulare	109	60	57	47	91
Tuolumne/	33	42	21	24	70
Mariposa					
Ventura	27	48	56	52	81
Total (N):	2432				
Statewide A	verage	44%	37%	40%	75%

<sup>\*</sup> Improved in these practices as measured by a combination of FBC questions that looks at meal planning, economical shopping and not running out of food.

#### E. Adult FSNEP Evaluation Conclusions

Adult FSNEP has been successful in delivering the program to a total of 109,276 families. Specifically, Adult FSNEP families improved in a number of behaviors in diet, nutrition-related skills and "self-sufficiency" skills.

The following results from Adult FSNEP are summarized below:

- <u>Fruit and vegetable consumption has improved</u> in FSNEP counties that reported results using the Food Behavior Checklist (FBC). Improvements ranged from an increase of 22% to 85% for Vegetables and 22% to 82% for Fruits. Improvements in vegetable and fruit consumption were better this year than those reported last year. For Vegetable and Fruit Variety the statewide average improvement was 43% and 43% respectively. (Table 10A).
- <u>The consumption of soft drinks has decreased</u> in all FSNEP counties. The percentage decrease ranged from 13% to 54%. The statewide average is 35% decrease in the consumption of soda after FNSEP lessons. (Table 10A)
- <u>The consumption of fat has decreased</u> in all FSNEP counties. The percentage decrease ranged from 28% to 72%, with the statewide average 43%. In addition, families are removing chicken skin (another indicator of decreasing fat intake). The improvement ranged from 16% to 90% (Table 10A).
- <u>24 hour dietary results</u> in 2 counties (Butte and Los Angeles) demonstrated increased consumption of fruits, vegetables, calcium and decreases in "other foods." (Table 10B)
- <u>Food Safety practices have dramatically improved</u> in all FSNEP counties. The percentage improved ranged from 11% to 64% (Table 11). For three indicators of safe food practices, 28% (average) decreased in letting foods sit out of the refrigerator, 49% (average) improved in thawing foods correctly, and 57% improved in the food safety practices scale (Table 11). Indicators of improved safety skills (e.g. not letting food sit out and thawing foods appropriately) have also increased (see Table 11).
- <u>FSNEP families are more self-sufficient</u> as measured by indicators from the FBC instrument (Table 13). The percent improvement in these indicators (planning, shopping and buying food economically) ranged from 64% to 100% with an overall average of 75%(Table 12).

#### F. Evaluation of Collaborative Projects

For FFY 05/06 a number of collaborator projects were funded, and their final reports are contained in Appendix C. Table 13 reports the number of clients reached by projects (total was 12,381) and the number of contacts made by projects (total was 12,992).

TABLE 13 Collaboration Projects Target Audience

	Frojects Target A		
Project Title	Classes/Lessons	Other Delivery Methods	Contacts
Nutrition Education for Adults	128		0
Nutrition Education for Youth	1023	68 Teachers	0
Gardens for Good Nutrition	4231		46 310
Educational Intervention to Modify Infant Feeding	150		442
Latino Women's Healthy Living Project	50		60
Nutrition Education and Physical Activity Promotion for Adolescents	103		0
Nutrition Education and Physical Activity Promotion for Adolescents	534		0
Determining Messages for a Nutrition			
Education Curriculum for Maintaining Healthy Weight	40		0
Point-of-Purchase Nutrition Messages	5938		0
Creating Healthy Families	199		118
Implementation and Evaluation of a Bone Health Curriculum Among Adult FSNEP		40 staff interviews 6 trainings	0
	Nutrition Education for Adults  Nutrition Education for Youth  Gardens for Good Nutrition  Educational Intervention to Modify Infant Feeding Latino Women's Healthy Living Project  Nutrition Education and Physical Activity Promotion for Adolescents  Nutrition Education and Physical Activity Promotion for Adolescents  Determining Messages for a Nutrition Education Curriculum for Maintaining Healthy Weight  Point-of-Purchase Nutrition Messages  Creating Healthy Families  Implementation and Evaluation of a	Nutrition Education for Adults  128  Nutrition Education for Youth  1023  Gardens for Good Nutrition  Educational Intervention to Modify Infant Feeding  Latino Women's Healthy Living Project  50  Nutrition Education and Physical Activity Promotion for Adolescents  103  Nutrition Education and Physical Activity Promotion for Adolescents  534  Determining Messages for a Nutrition Education Curriculum for Maintaining Healthy Weight  40  Point-of-Purchase Nutrition Messages  5938  Creating Healthy Families  199  Implementation and Evaluation of a Bone Health Curriculum Among Adult	Project Title Classes/Lessons Methods  Nutrition Education for Adults 128  Nutrition Education for Youth 1023 68 Teachers  Gardens for Good Nutrition 4231  Educational Intervention to Modify Infant Feeding 150  Latino Women's Healthy Living Project 50  Nutrition Education and Physical Activity Promotion for Adolescents 103  Nutrition Education and Physical Activity Promotion for Adolescents 534  Determining Messages for a Nutrition Education Curriculum for Maintaining Healthy Weight 40  Point-of-Purchase Nutrition Messages 5938  Creating Healthy Families 199  Implementation and Evaluation of a Bone Health Curriculum Among Adult 40 staff interviews

Reducing Risk in Childhood Overweight Among Families from Southeast Asia and China	40		21
Promoting Wellness in Early Childhood	671		2426
Expanded Nutrition Education in the School Cafeteria	235		0
Assembly and Delivery of Nutrition Education Programs for Overweight Low-Income African American Children	320		0
Resource Management to Enhance Nutrition		Materials Pilot-tested	0
FSNEP Fish Connection (FFC) Program	950		0
	Overweight Among Families from Southeast Asia and China  Promoting Wellness in Early Childhood  Expanded Nutrition Education in the School Cafeteria  Assembly and Delivery of Nutrition Education Programs for Overweight Low-Income African American Children  Resource Management to Enhance Nutrition	Overweight Among Families from Southeast Asia and China  Promoting Wellness in Early Childhood  Expanded Nutrition Education in the School Cafeteria  235  Assembly and Delivery of Nutrition Education Programs for Overweight Low-Income African American Children  Resource Management to Enhance Nutrition  FSNEP Fish Connection (FFC)	Overweight Among Families from Southeast Asia and China  Promoting Wellness in Early Childhood  Expanded Nutrition Education in the School Cafeteria  235  Assembly and Delivery of Nutrition Education Programs for Overweight Low-Income African American Children  Resource Management to Enhance Nutrition  FSNEP Fish Connection (FFC)  Materials Pilot-tested

#### IV. YOUTH FSNEP PROGRAM DESCRIPTION AND RESULTS

During FFY 05/06, Youth FSNEP in California operated in over 163 school districts, trained 1,134 new teachers, and 1,245 returning teachers and other extenders, reaching 59,040 low-income children with nutrition education (Tables 3-6). Teachers spent approximately 50,730 hours in training, preparation and teaching the FSNEP Youth education program. In addition, 15 new gardens were created in 8 counties, with 77 gardens continuing in 20 counties.

#### **Youth Target Audience**

Table 14 reports the number of teachers county staff worked with during the year. For FFY 05/06, 1,134 new teachers were trained; 1,245 returning teachers/extenders participated in the program; County staff were able to collect evaluation data from 2,191 teachers who completed the program.

#### **Recruitment of Teachers**

Successful teacher recruitment strategies used by county staff are summarized in Table 15. Youth staff utilized many creative recruitment methods in order to involve teachers (see Table 15).

Collaboration and partnerships continue to be very important in teacher recruitment. County advisors and program representatives dedicated significant time to building partnerships and participating in coalitions in order to collaborate and deliver nutrition education to target children. These partnerships and coalitions also served to minimize duplication of services with other organizations serving food stamp recipients and/or children receiving free/reduced-price meals.

Finding time in busy teachers' schedules to arrange training continued to be a challenge in many counties' recruitment efforts. With increased pressure to meet educational standards and increase test scores, teachers were often reluctant to add additional activities to their heavy workloads. County staff continue to stress that integrating the nutrition activities into existing subjects and linking the FSNEP lessons to California education standards is very important in getting teachers to use the curricula. Our newest curricula, *Eating Healthy From Farm to Fork, Promoting School Wellness, Reading Across MyPyramid* (*RAMP*) and *EatFit*, include links with the education standards of California, which have helped address some of these issues. Working with principals and teachers to link curricula activities to state education standards has been very helpful in getting program participation.

#### **Youth Program Promotion**

FSNEP Youth staff worked with a variety of individuals and agencies to promote the program. These individuals and agencies include: **school principals** (Alameda, Butte, Calaveras/Amador/Sacramento, Kings, Lake, Marin, Monterey/Santa Cruz, Placer/Nevada, Riverside, San Joaquin, San Luis Obispo, Santa Clara, Shasta, Siskiyou, Sonoma, Trinity, Tulare, Tuolumne/Mariposa), **county office of education/superintendents** (Kings, Lake, San Luis Obispo, Shasta, Siskiyou, Tehama/Glenn, Trinity, Tulare), **preschool directors** (Calaveras/Amador/Sacramento, Los Angeles, Placer/Nevada, San Francisco/San Mateo, San Luis Obispo, Sonoma, Tehama/Glenn), **lead/liaison teachers** (Butte, Calaveras/Amador/Sacramento, Shasta, Ventura), **school** 

nurses/nursing program (Calaveras/ Amador/Sacramento, Kings, Merced, San Francisco/San Mateo, San Joaquin, Santa Clara, Shasta, Siskiyou, Trinity, Tulare), other health professionals (Contra Costa), food service staff (Butte, Calaveras/Amador/Sacramento, Contra Costa, Marin, Placer/Nevada, Trinity, Tulare), Public Health (Alameda, Contra Costa, Marin, Monterey/Santa Cruz, Santa Clara, Shasta, Trinity, Yolo), nutrition coalitions (Alameda, Fresno, Monterey/Santa Cruz, San Joaquin, San Luis Obispo, Santa Clara, Shasta, Trinity, Tulare), Fruit and Vegetable Power Play (Alameda, Butte, Contra Costa, Fresno, Merced, San Francisco/San Mateo, San Luis Obispo, Santa Clara, Shasta, Siskiyou, Stanislaus, Trinity, Tulare, Ventura), California Nutrition Network (Alameda, San Francisco/San Mateo, Santa Clara, Tulare), Healthy Schools Project (Ventura), After School (Alameda, Contra Costa, Placer/ Nevada, Riverside, San Francisco/San Mateo, Tehama/Glenn, Tulare), Boys and Girls Clubs (San Joaquin, Santa Clara), American Cancer Society (Marin, Merced, Santa Clara), County Farm Bureau (Fresno), school gardening groups (Calaveras, Marin, Placer/Nevada, San Luis Obispo), Ag. In the Classroom (Marin, Monterey/Santa Cruz, Siskiyou), Master Gardeners or Junior Master Gardener (Contra Costa, Fresno, Marin, Riverside, San Luis Obispo, Ventura), County Ag. Education (Alameda, Monterey/Santa Cruz, San Luis Obispo), Gardening and Environmental Program (Marin), Mangini Ag. Museum (Contra Costa), Community Alliance with Family Farmers—CAFF (Fresno, Yolo), Food Systems Project (Marin), food banks (Contra Costa, Yolo), health advocates (San Francisco/San Mateo), school health program (San Francisco/San Mateo), child care councils (San Francisco/San Mateo), First Five School Readiness Consortium (Trinity), Parks and Recreation (Alameda), Health and Wellness Collaborative (Alameda, Yolo), Transitional Learning Center (Calaveras/ Amador), Probation Department (Kern), Food Conservation Corps (Marin), and California Commodity Boards (Butte, Fresno).

#### **School Gardens**

The "Garden in Every School" program (California Department of Education) encourages and supports a garden in every school to create opportunities for our children to discover fresh food, make healthier food choices, and become better nourished. Table 16 presents the number of FSNEP new and continuing school gardens for FFY 05/06. Youth FSNEP continued to work actively to integrate nutrition education into gardening curricula. Youth staff participated in the development of 15 new gardens throughout the state, in addition to working with 77 existing gardens to provide nutrition education.

One hundred and seventy-six (176) teachers used *Nutrition to Grow On* (Grades 4,5,6) and 145 teachers used *Teams with Intergenerational Support (TWIGS), Focus on Gardening and Nutrition* (Grades K-6), California FSNEP's two nutrition and gardening curricula.

#### **Evaluation**

Evaluation of California Statewide Youth FSNEP will continue in FFY 05/06. The FSNEP Youth website-based reporting system contains evaluations (pre-tests and post-tests) for *Reading Acrosss MyPyramid* (Grades K-3), *Nutrition to Grow On* (Grades 4-6), and *EatFit* (Grades 7-12).

#### **FUTURE PLANS**

UCCE's new curricula, *Go Glow Grow* (adapted from TEAM Nutrition for preschool) and *Eating Healthy from Farm to Fork.* . . *Promoting School Wellness* (connecting local food systems, garden-based learning, school food service and the establishment of healthy habits for Kindergarten), were completed this past fall. Youth staff were trained at the August Statewide Conference. Counties are very excited with materials that target younger preschoolers, as well as a curriculum that connects nutrition, garden, farm, and cafeteria.

County Youth FSNEP plans for strengthening and expanding the program include:

- Continue to use classroom visits/personal contacts to generate interest and recruitment of new teachers, and to support currently participating teachers, using nutrition content as well as demonstrations and activities with the students. Provide support and resources to teachers to implement their nutrition lessons in the classrooms and gardens.
- Continue contact with trained teachers to motivate them to follow through and implement lessons; continue contact with participating classrooms for updates, reviews, evaluation. Offer cooking activity/food demonstration, hands-on nutrition activities, and activity ideas to further enhance curriculum as incentives for teachers who complete a specified number of in-class nutrition education hours and complete evaluations.
- Provide teacher training with continuing education credits.
- Focus on identifying nutrition lessons and activities that meet core-subject and state standards requirements.
- Utilize thematic lessons and activities throughout the school year (for example, Harvest in the fall, Food Safety in the winter, Fruits/Vegetables and/or Gardening in the spring).
- Coordinate the use of volunteers to strengthen lessons and activities; for example, classroom presentation from farmer.
- Offer FSNEP in-services to schools. Designate one day a month for UCCE nutrition curricula activities in addition to the regular classroom lessons.
- Continue to utilize cross-age teaching (upper elementary students to teach nutrition to younger children) with nutrition/literacy and garden/nutrition curricula.
- Continue to develop lead/liaison teachers at school sites, who can facilitate communication, training, implementation, and evaluation with all teachers at that school, as well as with administrators at the school site.
- Develop resource loaner kits for curricula to provide teachers with "ready-to-use" lessons, books, and activities.
- Develop "marketing" and outreach packets for administrators, superintendents, principals, and teachers to promote FSNEP program and curricula.
- Expand work with state preschools and continuation high schools, as well as other at-risk youth.
- Continue to recruit and train teachers using the nutrition and literacy curriculum, *Reading Across MyPyramid (RAMP)*, grades K-3. With schools stressing the California Education Standards, a literacy/nutrition curriculum is very much welcomed by teachers and FSNEP staff. Correlations of the curriculum to the State Education Standards have been done for English-Language Arts, History-Social Science, Mathematics, Science, Health, Physical Education, and Nutrition Competencies. Linking literacy, nutrition, and the educational standards, this curriculum has definitely created a positive response and teacher interest.

- Continue to promote and expand activities with preschool teachers using the UCCE nutrition and literacy curriculum *Happy Healthy Me*, *Moving*, *Munching & Reading Through MyPyramid (HHM)*.
- Utilize school libraries to promote curricula book selections in *RAMP* and *HHM*.
   Collaborate with school librarians to promote programs, curricula, and lessons.
- Promote the new curricula, *Go Glow Grow* (preschool) and *Eating Healthy from Farm to Fork* (kindergarten).
- Promote *EatFit* (nutrition, physical activity and goal setting curriculum), particularly because of the epidemic of childhood and adolescent obesity; promote the nutrition and pedometer program.
- Expand programs to reach more youth through after-school programs.
- Work closely with Adult FSNEP program to coordinate getting nutrition education to both parents and children.
- Continue to work with teachers interested in developing gardens. Expand and strengthen the nutrition and gardening connections (including Farm to School, Junior Master Gardener, and *Eating Healthy from Farm to Fork* deliveries). Collaborate with nutrition/garden organizations to expand and enhance the program. Involve youth in family gardening projects. Recruit Master Gardeners to lead/support gardens in schools. Use *Harvest of the Month* (California Department of Health Services and Department of Education) to support nutrition/gardening activities.
- Use newsletters to include nutrition education/resources and promote the program and its activities.
- Strengthen collaborations with coalitions for children and weight/nutrition and physical activity, schools, gardening, and Fruit & Vegetables *Power Play!* Continue to build diverse partnerships in order to promote and strengthen program.
- Participate in school activities and events, such as back-to-school nights, Nutrition Olympics/Decathlon, family nutrition nights, National Nutrition Month, National Food Safety Education Month, Family Health and Fitness Days, 5 A Day for Better Health Week, National School Lunch Week, and Walk to School Week, in order to increase visibility of our program and provide education and resources.

TABLE 14 Teachers Recruited/Trained FFY 05/06

	FFY 2005/2006 New	FFY 2005/2006
Counties	Teachers Trained	Teachers Returning
Alameda	46	0
Butte	138	61
Calaveras/Sacramento	45	56
Colusa	11	34
Contra Costa	15	23
Fresno	69	71
Kern	0	0
Kings	34	0
Lake	4	0
Los Angeles	4	0
Marin	26	50
Merced	13	5
Monterey/SC	45	69
Placer/Nevada	73	175
Riverside	5	12
San Diego	80	29
San Fran/San Mateo	45	74
San Joaquin	42	80
San Luis Obispo	17	47
Santa Clara	45	31
Shasta	128	120
Siskiyou	13	16
Sonoma	11	10
Stanislaus	0	13
Sutter/Yuba	25	16
Tehama/Glenn	64	42
Trinity	34	27
Tulare	60	66
Tuolumne/Mariposa	7	42
Ventura	18	76
Yolo	17	0
Total	1134	1245

TABLE 15
Youth FSNEP Teacher Recruitment Strategies by County

County	Teacher Recruitment Method	Comments/Recommendations
Alameda	Contacted school principals. Presented to school teachers and staff. Maintained contact with follow-up meetings and phone calls to teachers, school nurses, and teacher aides. Built partnership and working relationships with Alameda County Nutrition Services, Oakland Unified School District, Bay Area Nutrition and Physical Activity Collaborative, People's Grocery, Parks & Recreation Department, and SAGE (Sustainable Agriculture Education).	Teacher training strategies included demonstrations and hands-on activities. Provided assistance in delivering the first lessons to help build knowledge and confidence in the curriculum.  One challenge faced this year was the threat of a teachers' strike, leaving many teachers feeling unsure of their status.
Butte	Contacted school principal or lead teacher to schedule short presentation at teacher staff meetings. Hosted school-wide events such as nutrition decathlon, farmer visits/presentations, Power Play fruit/vegetable challenge. Partnered with one school district and offered continuing education units to teachers for attending FSNEP in-service training.	The most significant issue impacting program involves Nutrition Network LIA (SCNAC). Teachers are often confused about Nutrition Network and FSNEP/ UCCE. School personnel often express frustration trying to identify which resources and services are provided by whom. We compete for opportunities and have had to revise our tracking to insure there is no duplication of match.
Calaveras/Amador and Sacramento	Since schools are now familiar with our program, signing up returning teachers is usually easy. Principals include us in their staff meetings shortly after the start of the new school year. Partnered with food service departments and school nurses throughout school year.	Short presentations at staff meetings showcase the program. Lead grade level teachers are important in coordination of recruitment, teaching, materials, etc.
Colusa	UCCE has been able to coordinate nutrition with second grade teachers' first unit of Reading and third grade teachers' Oregon Trail theme. During the summer, a classroom was dedicated to nutrition education/teaching.	Teacher training strategies include appointments to fit teachers' schedules, efficient training to respect full days, staff visits to teacher room to enroll and answer questions. It has been difficult to meet the needs of those who want this program.
Contra Costa	Recruited new teachers by through collaboration with district food service director, food bank community nutritionist, after-school coordinators, and county health department educators. Recruited past teachers via fall and winter newsletter, emails, and phone calls.	Successful teacher training strategies included individual meeting or group training using learner-centered techniques. To assist in program delivery, we offered classroom presentations, a lending kit of nutrition education/lesson supplies, and nutrition/ physical activity event at the end of the year.
Fresno	Several new partnerships resulted in new teacher recruitment, including Core Grants School Wellness Program, Community Alliance with Family Farmers (CAFF), Fresno Metro Ministry, Fresno County Farm Bureau, and summer lunch sites.	School visits were made, providing donated taste-test commodities. Teacher training was provided individually. A few schools allowed staff to provide training on the new MyPyramid at staff meetings.
Kern	Partnered with Kern County High School District Career Resources Department, Nueva Continuation High School, and Kern County	Concentrated on nutrition/cooking classes for at-risk youth, including pregnant and parenting, foster care, and drop outs.

	Probation Department.	
Kings	Initial recruitment efforts began with letters to school principals. Most successful efforts came from partnering with school nurses as liaisons. Nutrition collaborative connected program with nurses, school wellness committee, principal, and school board.	New program. Successful training strategy included setting up stations with materials for nutrition lessons for teachers.
Lake	Contacted superintendents, principals, and teachers. Program presentations were made at some school at staff meetings.	Turnover in staff was a significant challenge. As of January 2006, three people have held the program representative position, making continuity and consistency difficult. Most of these barriers have been addressed.
Los Angeles	Partnered with child care providers in Cypress Park Early Childhood Education Program.	Maternity leave of two staff members made implementation of the planned program difficult. With new staff in place, we anticipate active teacher recruitment and full implementation of the program for 2006-2007.
Marin	Partnered with teachers, principals, food service personnel, and parents. Attended monthly workshops given by Marin Co. Storm water Pollution Prevention Program (gardening/environmental), Ag. in the Classroom (agriculture and nutrition link), School Garden Network teachers (Sonoma County) and at the Marin Food Systems Project. Developed recruitment letters and sample lessons in teacher packets (County Farm Day, Am. Cancer Society's Spring Into Health).	Teachers given a nutrition lesson in classroom by program representative. Provided teachers with nutrition and gardening resources, as well as demonstration of activities during teacher training. Curriculum links to standards have been very useful in promoting program. Partnership with Marin Conservation Corp resulted in four members helping with nutrition program on weekly basis.
Merced	Recruited teachers through direct mailings for Power Play. Recruitment less than successful due to losing returning teachers to the California Nutrition Network program. In addition, the program representative was on leave for approximately 6 months.	Teacher training was provided individually to meet teacher schedules and needs.
Monterey/Santa Cruz	Partnered with school principals, teachers, school nurses, and Monterey County Ag. Ed. <i>Edible Express</i> , Youth FSNEP newsletter for teachers, continues to be an effective marketing tool.	Teacher training strategies included using activities that could be presented very quickly. Time constraints preclude any extensive training with teachers.
Placer/Nevada	Preschool: Made phone calls to eligible preschool site supervisors. Used quarterly newsletter and word of mouth.  School Age: Made contact with previously participating principals and teachers, recruited during teacher lunch hours and teacher staff meetings; sent flyers to teachers announcing presentations and sign-ups. Contacted new principals and teachers. Staff attended teacher staff meetings.  After School: Visited sites to communicate with site administrator, directors, and staff. In some areas the district office of support services was contacted.  Farm to School pilot: Two kindergarten	Teachers were reluctant to come to trainings scheduled after school due to other commitments. The most successful teacher training method was to give program overview at staff meetings and to present the first lesson of the curriculum to each class. This provided a good way to give the teacher an opportunity to see the lessons and activities. At the end of the year, staff return to the classrooms for a final review in the form of a game. Teacher evaluations are collected at the same time.

	classrooms were used in pilot program. Staff	
Riverside	worked with principal, teachers, and food service.  Recruitment was limited this year with the vacancy of the program representative position at the beginning of the school year.	Teacher training was done one-on-one.
San Diego	Successfully reenrolled/recruited teachers who have participated in the program in past years. Continued to partner with school nurses. With many schools instituting their School Wellness Policy, many teachers have requested the curriculum in the classroom.	Challenges encountered included teacher time constraints for training and implementing the program.  Successful teacher training strategies include working with teacher schedule, hands-on activities and showing sample activities. A classroom activity is done by staff to "jump start" the program for the teacher.
San Francisco/ San Mateo	Participated in SFUSD's Health Advocates fall meeting: "CBO Fair," that led to school teacher trainings. Collaborated with SFUSD's School Health Programs (Nutrition Education Project), Dept. Nutrition Education Project to coordinate/share resources, providing district-wide training on <i>Reading Across MyPyramid</i> . Collaborated with school nurses and provided training for teachers in two school districts. Partnered with childcare organizations (including YMCA, Wu Yee Children's Services, Children's Council of SF, SF Head Start, Coastside Children's Services). Continued Power Play partnerships. Distributed tri-annual newsletters.	Successful teacher training strategies included offering training as part of district-wide trainings (professional development credit offered), scheduling training as part of regular staff meetings, working cooperatively with the school's Health Advocate to coordinate trainings, and arranging flexible, short, concise, learner-centered, fun trainings. We try to link the Youth and Adult programs with such events as Family Nutrition Nights, offering multilingual nutrition classes and workshops for participating schools.
San Joaquin	Worked with County Office of Education to include program information in newsletter, communicated with vice principals and program directors to get placement on staff meeting agendas, continued contact with school nurses and Summer Migrant Education Program, participated in San Joaquin Physical Activity and Nutrition Coalition. New contacts made were after-school care pre-school and Boys & Girls Club. Offered parent nutrition education in participating youth program schools.	Mandated school wellness policy was helpful in reinforcing nutrition and our program efforts. Challenges include deficiency of Spanish materials and other languages, securing time at staff meetings, convincing teachers that incorporating nutrition education into their existing lesson plans is doable, and lack of teacher time for preparation. Many teachers continue to be resistant to lessons and activities that may not improve test scores.
San Luis Obispo	Mailed program information to school principals at qualifying schools. Created marketing campaigns for specific curricula and sent to eligible educators. Held nutrition unit planning sessions with educators, one-on-one or in grade-level meetings. Presented in-class activities to motivate teachers to continue nutrition unit. Partnered with Junior Master Gardeners, SLO Ag Education Committee, Superintendent of Instruction, California State Preschools, Gold Coast Collaborative, principals of qualifying schools, Power Play, JJ's Landscape Products.	Maintaining contact and monitoring progress of participating educators throughout the school year remained a challenge. Curricular and time constraints continued to be identified by educators as barriers to nutrition education, particularly in those schools identified by No Child Left Behind Act.
Santa Clara	Worked with teachers and principals who have worked with the program in previous years, offered special activities such as nutrition fairs and	Demands on teacher time from District requirements continue to be a big challenge. Teachers were given copies of

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	Nutrition Olympics. Partnered with Power Play, Public Health, Nutrition Network, American Cancer Society, STEPS (CDC) Program in Santa Clara County, Fit for Learning (County Office of Education), and Boys & Girls Clubs	handouts for all students to facilitate classroom delivery. Flyers sent every other month to remind teacher to turn in evaluations as they complete the lessons. Provided teachers with food demonstration and tasting, or nutrition lesson in the classroom, after completion of lessons and evaluations.
Shasta	Continued relationships with schools through communication and attendance at staff meetings helped in recruitment. Fruit and vegetable baskets to qualifying schools with program flyer.  Partnered with principals, school nurses, and teachers. Collaborated with Public Health, Shasta Coalition for Activity and Nutrition, County Office of Education, City of Redding.	Successful teacher involvement techniques included healthy food demonstration, classroom presentations, pedometer program, and offering Nutrition Olympics as a school event. Use of teacher advocates to spread the word about the program and get other teachers to join was very helpful.  Attending end of the year staff meeting or event helped in getting teachers to complete evaluations and match forms.
Siskiyou	Recruited teachers and principals using letters and follow-up phone calls, personal contacts, school presentations. Attended staff meetings and outreached to school nurses. With schools working on School Wellness Policy and organizing healthy school councils, interest in nutrition education has increased.	Successful training strategies included providing trainings when it is convenient with teachers. We also provided a healthy snack, followed by a sample lesson to model the curriculum.  Very challenged by teachers feeling they already have difficulty teaching required subjects. Some schools prefer to use Dairy Council materials because no reporting is required.
Sonoma	Partnered with school representative to plan upcoming year. Recruited and trained interested teachers. Assisted in gardening program.	Successful teacher training strategies include provide tasting demonstrations and hands-on curricular activities. Strategies to introduce nutrition education in the classroom include helping out with special events, as well as demonstrating hands-on activities.
Stanislaus	Sent newsletters to teachers previously participating in program. Encouraged teachers to recruit other teachers. Program staff position was vacant after December 2005. Future depends on filling vacant NF&CS Advisor position.	Difficulty continues due to mandatory curriculum.
Sutter/Yuba	Contacted teachers one-on-one, focusing on one grade level at a time (K level for this year).	Challenges include getting enough teacher match hours from teachers who must teach the standards. Training, because of teacher schedules and work load, continues to be difficult.  In addition, with the change in staff (two program reps. in past couple of years) and time necessary to develop rapport, implementation of the program has been affected.
Tehama/Glenn	Our best recruitment strategy was participating teachers. We contacted returning teachers to	One-on-one training of teachers has been most successful. Classroom presentations,

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	recruit other teachers from the school. Sent letters to teachers. Presented at Health and Safety Fair and recruited every 2 <sup>nd</sup> grade teacher at the school. Participated in county-wide Family Faire and other events. Collaborated with Power Play.	food demonstrations, fruit & vegetable baskets continued to be a good incentive for program participation and implementation.
	events. Conaborated with Fower Flay.	Challenges include getting teachers to report their salary, as well as their hours teaching nutrition.
Trinity	Outreach and recruitment strategies included newsletters, "Welcome Back Teachers" letters, Back-to-School fruit baskets, flyers, and electronic	New curriculum to offer teachers was a successful strategy to reach new and existing teachers.
	mailing list to all county teachers. Follow-up phone calls were made to schedule time at staff meetings or lunch times. Other activities included Spring campaigns, cafeteria visits, Power Mystery game, poster contests, lunch time food tasting. Partnered with teachers, principals, school nurses and food service staff, as well as Trinity Coalition for Activity and Nutrition, First Five, and Human Response Network.	Challenges included collecting salary information from teachers, particularly new teachers with whom a relationship has not yet developed.
Tulare	Successful strategies utilized for teacher recruitment and retention include model teaching training, photocopying lesson handouts, providing nutrition education items, fun easy hands-on activities for teachers to do in the classroom, and grade appropriate Jeopardy game on CD for program enhancement.	Successful teacher training and support strategies include loaning materials (such as books) to teachers, providing handouts to teachers to minimize preparation time, modeling lessons for teachers. Successful strategies for documenting teacher time included a curriculum calendar with the
	Presented to superintendents, principals, teachers, nurses, food-service directors, after-school	lessons, preparation time, additional activity, date, and length of the lesson.
	program staff and parent groups. Partnered with superintendents, principals, teachers, school nurses, and after school programs staff; as well as regional Power Play and local Nutrition Network.	Upon completion of the program components, staff goes into classroom and plays Jeopardy game with nutrition education incentive items, reinforcing nutrition education from the curriculum.
Tuolumne/ Mariposa	Teachers excited about the program get other teachers to participate. Provided articles to principals and teachers to include in staff	Getting teacher time for training continued to be an obstacle.
	newsletters and other school distribution methods.	Conducted several documentation- specific meetings with teachers. Also began the new year at each eligible school with a teacher incentive package to the teacher reporting the most hours the previous year. Good discussions on reporting, as well as positive feedback came out of meetings.
Ventura	Recruited using referrals from teachers currently enrolled in program, nutrition educators in the school districts, and Power Play. Partnered with Ventura Unified School District Healthy School Project (Farm to School Salad Bars) (quarterly newsletter) and Power Play.	Continued to use a lead teacher at each school as contact person to coordinate and facilitate training, book loan program, and year-end reports. Partnership with Power Play continues to be successful. Challenges include inadequate time for trainings, the need of Spanish materials ( <i>Happy Healthy Me</i> newsletters), and not having updated materials ( <i>EatFit</i> revised to new Dietary Guidelines and

		MyPyramid).
Yolo	Partnered with Yolo County Health Department,	Teacher training strategies included on-
	Yolo County Food Bank, YFIT Collaborative for	site teacher trainings. Activity kits to
	Youth, City of Woodland, California Alliance for	assist teachers in doing the lessons, as
	Family Farmers, and Farm to School.	well as ideas to enhance the curriculum
		were provided.

TABLE 16
New and Continuing School Gardens to Enhance Nutrition Education by Youth FSNEP Counties FFY 05/06

	New	Continuing	<b>Number of Teachers</b>	<b>Number of Teachers</b>
County	Gardens	Gardens	Using NTGO*	Using TWIGS*
Alameda	1	9	40	6
Butte	1	2	6	0
Calaveras/Sacramento	0	1	3	4
Colusa	0	1	0	0
Contra Costa	0	4	1	0
Fresno	1	1	5	0
Kern	0	0	0	0
Kings	0	0	1	0
Lake	0	0	0	0
Los Angeles	0	0	0	0
Marin	3	9	2	2
Merced	0	0	0	0
Monterey/Santa Cruz	0	8	18	6
Placer/Nevada	1	0	16	0
Riverside	0	1	1	8
San Diego	0	0	7	26
San Francisco/San Mateo	0	0	0	2
San Joaquin	0	5	13	16
San Luis Obispo	0	5	5	4
Santa Clara	0	0	1	0
Shasta	1	5	39	56
Siskiyou	0	2	1	2
Sonoma	0	1	6	0
Stanislaus	0	0	0	0
Sutter/Yuba	0	0	0	0
Tehama/Glenn	0	4	0	0
Trinity	0	3	1	1
Tulare	0	3	0	2
Tuolumne/Mariposa	2	1	10	10
Ventura	5	10	0	0
Yolo	0	2	0	0
TOTAL	15	77	176	145

TWIGS: Teams with Intergenerational Support, Focus on Gardening & Nutrition

<sup>\*</sup> NTGO: Nutrition To Grow On

#### FINANCIAL SUMMARY

The final financial report is not available at this time. Final expenditures are still outstanding, and are being processed and posted to reflect the September 2006 University of California accounting system's general ledgers. These ledgers will not reflect total FFY 2005/2006 expenditures until December 2006. Along with the final claim, a final financial report will be submitted prior to January 15, 2007, that will summarize expenditures for FFY 2005/2006. CDSS will forward a copy to USDA-FNS at that time.

#### V. CONCLUSION

Attached to this Final Report is the USDA template for Appendix A

The FSNEP program of California was implemented in 27 Adult program units and 38 Youth program units for FFY 2005/2006. The Adult program provided nutrition education to 109,276 families and the Youth program reached 59,040 youth participants. Youth program participants showed substantial improvements in diet, nutrition-related knowledge, and food-related skills and behaviors.

In the Adult program, improvements were reported in the diets of Food Stamp recipients who completed two to four lessons of FSNEP. Improvements included: increases in fruits and vegetables, and decreases of fat, soft drinks and high sugar foods. Families demonstrated very positive improvements in food safety skills. In addition, self-sufficient scores were very positive in this year's evaluation. In conclusion, FSNEP Adult families are more self-sufficient, have better diets and save money.

A total of 59,040 youth participated in nutrition education experiences through FSNEP. Also, over 2,379 extenders, most of whom were schoolteachers, were trained and will continue delivering nutrition education to their students. Other results include the following: over 163 school districts were reached, and 15 new gardens were developed in eight counties. In addition, 77 FSNEP school gardens were continued in twenty counties. Reaching these young students and their parents will greatly enhance the potential for improvement in both individual and family dietary choices.

An additional 14,612 clients were taught by a variety of methods for 16 Collaboration Projects (see Appendix C). In total 188,730 clients received direct nutrition education by UC FSNEP.

## Appendix A

## **USDA** Templates

**Template 1: State Nutrition Education Report Summary** 

### Appendix A. Template 1: State Nutrition Education Report Summary

<b>Project Name</b>	Delivery L	ocations.	Aud	ience	Methods	Content	Evaluation
	Geographi c Area (Statewide or counties reached)	Delivery Sites (type and number)	Targeted Audience	Total No. of Participant s (estimated, unduplicat ed count)	Frequency, Duration and Type of Educational Methods	Key Message(s)	Type and Status
(Example) FSNE Parent Project	County A, County B	15 Schools	Mothers of elementar y school children	300	6 30-minute group classes, 6 mailed newsletters	Be a role model: eat breakfast with kids.	Process- completed 9/30/2007
1. FSNEP Core Lessons	Statewide	27 County Sites	Food Stamp Eligible Adults	6,653	Classes taught in Groups, at Targeted Sites	- Dietary Quality Shopping Behavior - Food Resource Management - Food Security & Safety	Impact- Completed 9/30/2006
2. FSNEP Mini	Statewide	16 County Sites	Food Stamp Eligible	2,589	Classes taught in Groups, at Targeted Sites	- Increase Fruit and Vegetable Consumption	Impact- Completed

Workshops			Adults			- Resource Management	9/30/2006
3. Home Study	Statewide	11 County Sites	Food Stamp Eligible Adults at Rural Sites	1,024	Learn at Home	- Increase Fruit and Vegetable Consumption - Improve food safety skills - Improve shopping skills - Understand resource management concepts	Process- completed 9/30/2006
4. Contacts	Statewide	27 County Sites	Food Stamp Eligible Clients	99,010	Classes, Groups	Demonstrations, one-time events, newsletters	Process- completed 9/30/2006
5. Nutrition Gardening	Statewide	21 County Sites	Teachers of youth in Food Stamp Eligible Schools	321	Classes, Groups	Discover fresh food, make healthier food choices, and become better nourished.	Process- completed 9/30/2006
6. Youth FSNEP Lessons	38 State Counties	163 County School Districts	Teachers of youth in Food Stamp Eligible Schools	2,379	Classes, Groups	- Increase Fruit and Vegetable consumption - Reduce fat and soda consumption - Understand about basic nutrition	Process- completed 9/30/2006

7. Collaboration Projects	16 Projects	Statewid e	Food Stamp Eligibles	14,612	Classes, Individual & Group, Educational Development	- Dietary Quality Shopping Behavior - Food Resource Management - Food Security & Safety	Impact completed 9/30/2006
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<sup>\*</sup>For evaluation type, indicate Formative, Process, Impact, Outcome or None.

Appendix B

Map of California



Appendix C Final Reports: Collaboration Projects

# Appendix C Project "Deliverables" FFY 05/06 Education Materials Produced Through Collaboration Projects

	Project Title	Investigator	Deliverables
1	Nutrition Education for Adults	Joy	<ul><li>a. Folate and Magnesium</li><li>Handouts for FSNEP Clients</li><li>(Drafts)</li><li>b. Folate lessons for FSNEP Clients</li></ul>
		Zidenberg-	a. "Reading Across My Pyramid Nutrition Knowledge of First Graders Research Poster b. "School-Based Nutrition Educ California Schools" Poster c. "School Wellness, Farm to
2	Nutrition Education for Youth	Cherr	Fork" Poster
2B	Gardens for Good Nutrition	Hillhouse	a. Education handouts &
ZB	Gardens for Good Nutrition	niiinouse	teaching instructions
3	Educational Intervention to Modify Infant Feeding	Dewey	a. Lesson Guides, Handouts, pre- and post-tests
4	Latino Women's Healthy Living Project	Steinberg	a. Abstract for 2006 Experimental Biology Meetings
5	Nutrition Education and Physical Activity Promotion for Adolescents	Kaiser	a. Survey for feeding practices
6	Nutrition Education and Physical Activity Promotion for Adolescents	Townsend	a. "Eat Fit" questionnaire b. Brochure and PowerPoint printout
7	Determining Messages for a Nutrition Education Curriculum for Maintaining Healthy Weight	Townsend	a. "Healthy Lifestyles" evaluation
8	Point-of-Purchase Nutrition Messages	Townsend	a. Sample of Point-of- purchase Messages (table) b. Brochures
9	Creating Healthy Families	Ontai	a. "Parent Education in FSNEP education" materials

			b. Brochures on CD-Rom
	Implementation and Evaluation		
	of a Bone Health Curriculum		a. "A diet for Healthy
10	Among Adult FSNEP	Wang	Bones" curriculum binder,
	Reducing Risk in Childhood		a. "Healthy Weight"
	Overweight Among Families from		information pamphlets for
11	Southeast Asia and China	Ikeda	Asian-American Families
			a. Education Materials
			Binder
			b. Questionnaires
			c. Interview Forms
	Promoting Wellness in Early		d. Staff & Parent
12	Childhood	Crawford	Newsletters
	Expanded Nutrition Education in		a. Mock Tool Kit of
13	the School Cafeteria	Crawford	Resources
	Assembly and Delivery of		
	Nutrition Education Programs for		
	Overweight Low-Income African		
14	American Children	Fleming	a. "Nutrition Lessons"
	Resource Management to		a. "Make Every Dollar
15	Enhance Nutrition	Varcoe	Count" Curriculum book
			a. Fish Lessons (ERIB-
			enhanced)
	FSNEP Fish Connection (FFC)	Zidenberg-	b. Phone Interview
16	Program	Cherr	Questionnaire

# Final Report – Nutrition Education for Adult FFY 05/06

Name: Amy Block Joy, Ph.D.

Title: Nutrition Education for Adult

**Amount of Funding:** \$37,000

#### **Project Goals:**

This project was to develop some new delivery materials for Adult FSNEP eligible clients based on the need for targeted lessons for specific nutritional recommendations. Dr. Amy Block Joy and graduate student Emily Cena developed nutrition education materials for increasing folate consumption in food stamp eligible audiences. A miniworkshop approach (2-3 hours) and fruit and vegetable consumption for FSNEP eligible women (ages 18-45) was developed to focus on increasing folate intake.

A preliminary study on folate intake in FSNEP audiences was implemented in FFY 04/05 (funding provided by USDA Training Grant for Emily Cena). Results for that preliminary study showed that food stamp eligible audiences are at risk for low-folate status.

Drs. Judy Stern and Alexandra Kazaks developed a Magnesium handout (in draft) to be used for Adult FNSPE eligible clients who may be at risk for obesity and obesity-related asthma (adults and their children).

#### **Project Results**:

The preliminary results have been accepted for publication in California Agriculture in April 2007. The results on 128 FSNEP clients demonstrate that 59% of them failed to meet the Institute of Medicine's folate intake recommendations. The results support the need to develop targeted nutrition education focusing on the importance of adequate folate consumption.

#### Low-income women in California may be at risk of inadequate folate intake

- 3 In this study of 195 women participating in California's Food Stamp Nutrition Education
- 4 Program, 59% failed to meet the Institute of Medicine's intake recommendations for
- 5 reproductive age-women. This study supports the need for the development of targeted nutrition
- 6 education lessons focusing on the importance of adequate folate consumption.

#### Folate recommendations

There are two types of folate in the U.S. food supply today – naturally occurring folate and synthetic folic acid (SFA). Naturally occurring folate is found in a limited number of food sources, such as spinach and beans. SFA is added to enriched grain products, such as ready-to-eat breakfast cereal, and is also found in dietary supplements. The primary difference between these two types of folate is their bioavailability. Due to differences in their digestion and absorption, SFA is more readily available to the body's tissues than is natural food folate (IOM 1998). For this reason, a standard unit called the dietary folate equivalent (DFE) is typically used to quantify intake of the vitamin. One µg DFE is defined as 1 µg natural food folate, 0.5 µg SFA taken on an empty stomach, or 0.6 µg SFA taken with food. A bioavailability factor of 1.7 is used to calculate the µg DFE provided by SFA in fortified foods. A summary of these and other relevant terms is given in the glossary.

In 1998, the Food and Nutrition Board of the Institute of Medicine published the Dietary Reference Intakes (DRIs) for folate (IOM 1998). The DRIs are recommendations for nutrient intakes that can be used for planning and assessing diets. In the case of folate, there are three recommendations for women of childbearing age. The Recommended Dietary Allowance (RDA) is the intake level that is considered sufficient to meet the needs of 98% of healthy people

of a given age and gender. The folate RDA for adults is 400 µg DFE/day, which is based on the amount of dietary folate required to maintain normal blood concentrations of certain indicators of folate status. The second DRI for folate is the Tolerable Upper Intake Level (UL), or the highest daily intake level that is unlikely to pose any risk of adverse effects for almost all healthy people of a given age and gender. The UL for folate is 1000 µg SFA/day, regardless of the natural food folate consumed, and it is based on the possibility that very high intakes of SFA from supplements and fortified foods may conceal a vitamin B-12 deficiency. Lastly, there is a special recommendation in the DRIs for women of childbearing age. Specifically, in order to reduce the risk of NTDs, all women capable of becoming pregnant are recommended to consume at least 400 µg SFA/day, in addition to the natural food folate supplied by a varied diet.

Other studies suggest certain population sub-groups may still be at risk. Previous research has shown that African American women have lower serum and red blood cell folate levels than do other ethnic groups (CDC 2002) and socioeconomically disadvantaged women tend to have lower serum and red blood cell folate levels than their socioeconomically advantaged counterparts (Caudill et al. 2001).

#### Folate intake assessment

The purpose of this study was to assess folate intake among low-income, food stamp-eligible women of childbearing age in California. The Food Stamp Nutrition Education Program (FSNEP) of California serves approximately 60,000 food stamp-eligible families each year by providing nutrition education and skills training about selecting, purchasing, and preparing healthy foods. Funding for this program is through an inter-agency agreement between the United States Department of Agriculture (USDA), the California Department of Social Services (CDSS), and the University of California, Davis. Because the primary goal of FSNEP is to

- 1 improve the diets of food stamp recipients, it is an appropriate setting for studying the dietary
- 2 habits of low-income individuals. This paper will present the results from a preliminary study
- 3 that demonstrates a need for targeted folate lessons.

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#### Participants and instruments

During the spring of 2005, 211 women participating in California's FSNEP were recruited from 12 counties to participate in this cross-sectional survey of folate intake: Alameda (n = 59), Calaveras (n = 14), Amador (n = 3), Fresno (n = 10), Los Angeles (n = 11), Nevada (n = 11)= 12), Placer (n = 8), Riverside (n = 7), San Diego (n = 33), Shasta (n = 29), Trinity (n = 20), and Tuolumne (n = 5). Women were included in the study if they were between 18 and 45 years of age, not pregnant, and were able to read and understand English or Spanish. The study was approved by the Institutional Review Board at the University of California, Davis. Study participants were asked to complete both a demographic survey and the Block Dietary Folate Equivalents Screener. Forms were available in English and Spanish and participants were given the option to complete either version. The demographic survey was adapted from the Adult FSNEP Family Record. The Block DFE screener is a one-page, rapid screener that was developed to measure usual intake of dietary folate in low-income populations. Food items and beverages (4368 items) from NHANES 1999-2000 were divided into 152 questions. DFEs were then calculated using the folate contribution of each item multiplied by its mass and corrected for by the appropriate bioavailability factor determined by the IOM: 1.0 for natural food folate and 1.7 for SFA. Food groups were then ranked according to their folate contributions. The final screener includes 19 questions about food and beverage groups that represent about 60% of DFE intake in the U.S., and 2 questions about supplement use. A program was developed to compute the DFE intake from food sources and vitamin supplements.

The screener has previously been demonstrated to reflect red blood cell folate status in this population (Clifford et al. 2005).

Of the 211 female participants, six were excluded due to incomplete surveys and ten were excluded as outliers. As a result, a total of 195 women were included in the final analysis. The completed folate screeners were scanned and scored by Block Dietary Data Systems in Berkeley, CA. Data from the demographic survey and screener were analyzed by independent t-tests, one-way analysis of variance, and Tukey post-hoc multiple comparisons, using SPSS version 13.0.

Demographics

Results from the demographic questionnaire (Table 1) show that the average age of participants was between 33 and 34 years, with 45.1% of respondents being Caucasian, 30.8% Hispanic, and 13.3% African American. Due to small sample sizes of Asians, Pacific Islanders, and Native Americans, these women and the women that wrote in a different response were combined into a category called "other". The "other" category comprised 6.7%. 4.1% of participants did not report their ethnicity. Approximately two-thirds of the respondents completed the English survey.

16 Folate intake

The Block DFE screener provided information about participants' intake levels of naturally occurring food folate, SFA from fortified foods, and SFA from supplements. Of the 195 participants, 80 (41%) reported taking a supplement containing folic acid at least twice per month. The mean estimated total intake of folate from all sources was  $911 \pm 33$  (mean  $\pm$  SE)  $\mu$ g DFE per day (Table 2). Of this,  $419 \pm 18$   $\mu$ g (or 712  $\mu$ g DFE) was in the form of SFA from fortified foods and supplements (Table 2). Although the mean intake levels for total DFE and

SFA exceeded the recommendations, more than half of the women in the study had sub-optimal SFA intakes (Table 3).

#### Differences in folate intake by ethnicity

After comparing the mean folate intakes to dietary recommendations, we tested for differences in intake according to demographic characteristics. One-way analysis of variance revealed significant differences in folate intake between ethnic groups (Figures 1 and 2). On average, Hispanic women consumed more total DFE than Caucasian and African American women (p < 0.01), and more SFA than African American women (p < 0.05). The mean intakes for women classified as "other" were not significantly different from any of the other three groups for either total DFE or SFA, possibly due to the small sample size. There were no significant differences in total dietary folate intake or SFA intake according to county of residence, language, or age.

#### Sub-optimal folate intake

Results from this study demonstrated that nearly 59% of the participants did not meet the IOM recommendation for women of childbearing age to consume at least 400 µg SFA/day. This suggests that low-income women of reproductive age in California may be at risk of sub-optimal folate status, despite the efforts of the national fortification program. Upon further investigation, we found that 90% of the women with SFA intakes below the recommended level reported taking folic acid-containing supplements once per month or less or not at all. In contrast, among the 81 women with adequate SFA intakes, 66 women (81%) reported taking supplements with folic acid at least twice a month, and most took them more frequently. Of the 13 women that reported taking a supplement more than once a month but still failed to meet the SFA recommendation, most only took the supplement 2-3 times per month. They also tended to

1 consume low amounts of typically fortified foods, such as breakfast cereal and bread products.

2 Folate intake from most vegetables appeared to be inadequate to overcome low intake levels of

SFA. These findings suggest that supplement use and regular consumption of cereals and bread

4 products are dominating factors in determining how well a woman meets her folate needs.

Similar conclusions can be drawn regarding the 17 women that had total DFE intakes below the RDA. All of the women in this group reported taking supplements no more than once per month or not at all. In general, women in this group also reported infrequent consumption of cold breakfast cereal and relatively low intake of bread products. Some of the women did report regular intake of salads and other vegetables, but in those cases the folate intake from fortified foods was low.

Of the 195 study participants, only 3 had SFA intakes that exceeded the UL. All of them reported taking a multiple vitamin supplement every day. They each also reported taking a folic acid or B-complex supplement and/or consuming ready-to-eat breakfast cereal every day. All 3 reported daily consumption of dark leafy greens. These findings suggest that the risk of folic acid toxicity in this population is low.

The results of this study demonstrate that folic acid-containing supplements have a considerable impact on total SFA intake in this population. This highly influential role of dietary supplements is consistent with the findings from Clifford et. al. (2005). In their study of low-income women in the Sacramento area, mean ( $\pm$  SE) total SFA intake for non-pregnant women of childbearing age was 950  $\pm$  64  $\mu$ g/day, which included a daily supplement of 600  $\mu$ g SFA/day. Before the supplementation period began, that same group of women had a mean SFA intake of 321  $\pm$  34  $\mu$ g/day, which is below the recommendation for women of childbearing age.

It is important to note that the Block DFE screener is used to estimate folate intake in order to quickly and easily determine the risk of low folate status. For quantitative data assessment, a more traditional food frequency questionnaire could be used. As with all studies of self-reported food intake, participants in this study may have under- or over-reported their consumption of certain food groups. In addition, the food items included in the screener may not fully represent the dietary choices of different ethnic groups or individual variation. The differences in folate intake according to ethnicity in this study are also of interest. The finding that Hispanic women consumed more SFA and total folate than African American women is consistent with results from NHANES 1999-2000; however, the finding that Hispanic women also consumed more total folate than Caucasian women was surprising. Researchers from the CDC analyzed the NHANES dataset to compare serum and red blood cell folate status between women of childbearing age from three ethnic groups (Non-Hispanic white, Non-Hispanic black, and Mexican American). They found that Non-Hispanic white women had the highest blood folate values, followed by Hispanic women, and then Non-Hispanic black women (CDC 2002). This study was an initial assessment of folate intake by women of childbearing age (18-45 years) in California's Food Stamp Nutrition Education Program. The fact that more than half of the participants had total SFA intakes below the IOM recommendation for reducing the risk of NTDs suggests that low-income women of childbearing age in California may be at risk of suboptimal folate status. Previous studies have found that socioeconomically disadvantaged groups and some ethnic minorities have limited awareness and understanding of what folate is and why

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it is important (Kloeblen 1999; Chacko et al. 2003). Targeted nutrition education lessons which

1 include folate education, conducted by programs such as FSNEP, could prove to be effective at 2 improving folate status in low-income women residing in California. 3 4 We would like to acknowledge the following FSNEP county staff for participant 5 recruitment and data collection: Mary Blackburn, Dorothy Smith, Renee Dwyer, Patty Davidson, 6 Barbara Turner, Margaret Fields, Sharon Junge, Chutima Ganthavorn, Patti Wooten Swanson, 7 Christine McNamara, Gloria Espinosa-Hall, and Rogenia Harrison. We would also like to 8 acknowledge Torin Block of Block Dietary Data Systems for scanning the screeners and for his 9 guidance with questions about the screener. 10 11 This study was funded by the USDA Training Grant (Emily Cena's graduate studies). County 12 staff were funded in part by the Food Stamp Nutrition Education Program (FSNEP). 13 14 References 15 Bodnar LM, Wisner KL. 2005. Nutrition and depression: implications for improving 16 mental health among childbearing-aged women. Biol Psychiatry 58:679-85. 17 Boushey CJ, Beresford SA, Omenn GS, Motulsky AG. 1995. A quantitative assessment 18 of plasma homocysteine as a risk factor for vascular disease. Probable benefits of increasing folic 19 acid intakes. JAMA 274(13):1049-57. 20 Brown JE, Jacobs DR Jr, Hartman TJ, et al. 1997. Predictors of red cell folate level in 21 women attempting pregnancy. JAMA 277(7):548-52.

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1 [MRC] Medical Research Council. 1991. Prevention of neural tube defects: results of the 2 Medical Research Council Vitamin Study. Lancet 338:131-7. 3 4 5 **GLOSSARY** 6 7 **Folate** – a B vitamin required by the body for a variety of functions, including DNA synthesis 8 and repair. The term "folate" refers to naturally occurring food folate and synthetic folic acid. 9 Neural tube defect (NTD) – a general term for birth defects that are caused by incomplete 10 closure of the neural tube during the first month following conception, including spina bifida and anencephaly. Severity of NTDs ranges from impaired brain development to death. Adequate 11 12 folate intake in women of childbearing age reduces the risk of NTDs. 13 Synthetic folic acid (SFA) – a man-made form of folate that is found in fortified grain products 14 and vitamin supplements. The bioavailability of SFA is greater than that of natural food folate. 15 **Dietary folate equivalent (DFE)** – the standardized unit for measuring folate intake. 1 µg DFE = 1  $\mu$ g natural food folate = 0.5  $\mu$ g SFA from a supplement that is taken on an empty stomach = 16 17 0.6 µg SFA taken with food or from a fortified food source. 18 **Block DFE Screener** – an instrument that was developed to quickly estimate usual folate intake 19 from 21 food and supplement sources. The purpose of the screener is to identify individuals that 20 may be at risk of low folate status. In particular, the Block DFE is intended for use in low-21 income populations. 22 **Recommended Dietary Allowance (RDA)** – the intake level for a nutrient that is considered 23 sufficient to meet the needs for almost all healthy people of a given age and gender. For folate, 24 the RDA for adults is 400 µg DFE/day. This value is based on the amount of dietary folate 25 required to maintain normal blood concentrations of certain folate status indicators. 26 **Tolerable Upper Intake Level (UL)** – the highest daily intake level for a nutrient that is 27 unlikely to pose any risk of adverse effects for almost all healthy people of a given age and 28 gender. For folate, the UL for adults is 1000 µg SFA/day, regardless of the natural food folate 29 consumed. This value is based on the possibility that very high intakes of SFA from 30 supplements and fortified foods might conceal a vitamin B-12 deficiency. 31 **Special recommendation for women of childbearing age** – a recommendation for women 32 capable of becoming pregnant that was set forth by the Institute of Medicine, in addition to the 33 RDA. In order to reduce the risk of giving birth to a child with an NTD, women of childbearing 34 age are recommended to consume 400 ug SFA/day, in addition to the natural food folate 35 supplied by a varied diet. 36 37 38 39 40 41

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TABLE 1. Demographic characteristics of study participants (N = 195)

Survey Version	Percentage	Percentage (number of women)	
English	71.3%	(139)	
Spanish	28.7%	(56)	

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Lumicity		
White	45.1%	(88)
Hispanic	30.8%	(60)
Black	13.3%	(26)
Other*	6.7%	(13)
Unreported	4.1%	(8)

TABLE 2. Estimated folate intake from food and supplement sources (N = 195)\*

Type of Folate	Mean Intake ± SE (μg)	Bioavailability Factor	Dietary Folate Equivalents  ± SE
Notarella e commine	100 0 + 14 6	1.0	(μg DFE)
Naturally occurring folate in foods	$198.0 \pm 14.6$	1.0	$198.0 \pm 14.6$
Synthetic folic acid in fortified foods	$270.5 \pm 10.0$	1.7	$459.9 \pm 17.1$
Synthetic folic acid in supplements	$148.8 \pm 16.6$	1.7	$253.0 \pm 28.2$
	Mean Total Synthetic Folic Acid Intake = 270.5 + 148.8 = 419 ± 18 μg		Mean Total Dietary Folate Equivalents = 198.0 + 459.9 + 253.0 = 911 ± 33 µg DFE

<sup>\*</sup> Due to small sample sizes, individuals that marked "Asian/Pacific Islander", "American Indian/Alaskan Native", or wrote in a different response were grouped into a category called "Other".

<sup>\*</sup> For a given type of folate, Mean intake x Bioavailability factor = Dietary folate equivalents.

TABLE 3. Number of participants not meeting Institute of Medicine's recommendations for folate intake

Recommendation	Number of women not	Percentage of study
	meeting recommendation	participants
Recommended Dietary Allowance	17	8.7
for Adults:		
At least 400 μg DFE/day		
Tolerable Upper Intake Level for	3	1.5
Adults:		
No more than 1000 μg synthetic		
folic acid/day		
Special Recommendation for	114	58.5
Women of Childbearing Age:		
At least 400 μg synthetic folic		
acid/day		

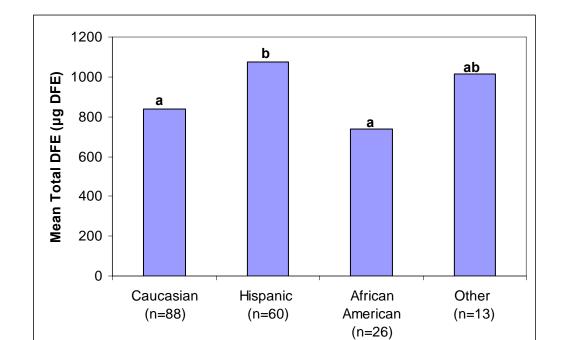
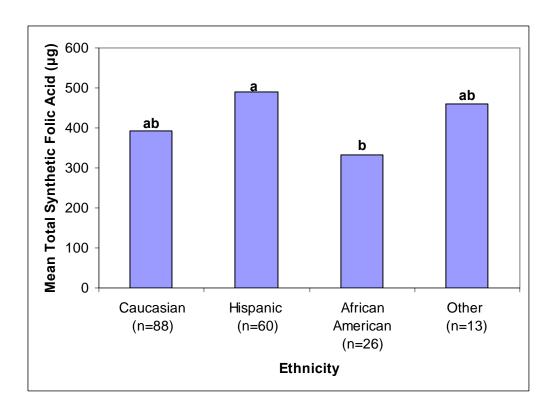


FIGURE 1. Mean total dietary folate equivalents by ethnicity. Groups without a

superscript are significantly different from one another (p<0.01). 

**Ethnicity** 

5



- 3 FIGURE 2. Mean total synthetic folic acid intakes by ethnicity. Groups without a common
- 4 superscript are significantly different from one another (p<0.05).

#### FSNEP FINAL REPORT FFY 05/06

(Due 10/13/06) Name: Sheri Zidenberg-Cherr

Title of FSNEP Project: Nutrition Education for Youth

**Amount of FSNEP Funding:** This is a combination of collaboration projects completed by Sheri Zidenberg-Cherr, Carol Hillhouse, and Sharon Junge. According to the FSNEP plan FFY 06 the amount totaled \$202,751.

#### 1. Project Goals and Objectives:

The primary goals of this project were to:

- 1) To improve the nutrition habits, knowledge, and attitudes of children attending schools with 50% or more free and reduced priced lunch programs, through participation in a multifaceted nutrition education program.
- 2) To contribute educational efforts toward a more comprehensive, holistic nutrition education approach in schools that incorporate gardening, nutrition education, agriculture, and school cafeteria.

The specific objectives of this project were to:

- 1) Assess the impact of the "Reading Across My Pyramid" (RAMP) curriculum on first graders who attend elementary schools.
- 2) To update a youth website to list all program goals, objectives, and resources related to youth programs conducted by UC Cooperative Extension.
- 3) To develop garden-based lesson programs for young children that are aligned with California Department of Education's Curriculum Standards and Nutrition Competencies.
- 4) To network with CNN garden programs.
- 5) To provide training on the use of school gardens to enhance academic curricula.

# **2.** <u>Description of FSNEP Project:</u> (Please include only the portion of the project funded by FSNEP)

*In Relation to Objective 1:* 

• A short survey based on topics covered in RAMP lessons was developed and tested for clarity in a group of California Food Stamp Nutrition Education Program (FSNEP) eligible children in Placer County (N = 20). Revisions were made accordingly and the *Child Nutrition Survey* was used in Contra Costa, Fresno and San Diego Youth FSNEP (N = 62) to evaluate RAMP. A *Parent Nutrition Survey* was also used to determine correlations between the responses of children and their parents.

#### *In Relation to Objective 2:*

• A youth website was updated to host a resource guide of the many materials we have identified, as well as the curriculum assessment tool we have developed. Work on this website will continue next year.

(http://groups.ucanr.org/F2S/index.cfm)

#### *In Relation to Objective 3:*

- The following garden based programs were developed:
  - The Comprehensive Nutrition and Health Education Program was developed, implemented, and evaluated at Rock Creek (Auburn, California), and American Union (Fresno, California) Elementary Schools. It included the following components: 1) The establishment of a salad bar; 2) The development and implementation of nutrition education curricula and activity guides; 3) The integration of a garden "laboratory" with nutrition education to improve children's knowledge of nutrition and improve their food choices and 4) The development of food-waste composting systems at the pilot schools in an effort to reduce lunch waste.
  - Nine elementary schools, four in Yolo County and five in Sacramento County, participated in the "Gardens for Good Nutrition" program. The focus of this program was to identify food groups and to emphasize the importance of eating fruits and vegetables every day. In general, we worked directly with one to two grade levels of children for the nutrition education components. Six of the participating schools also sent students to the UC Davis Children's Garden Program for field trips.
  - We adapted and developed materials and curricula to better meet the needs of California's ethnically and linguistically diverse audiences so that they can be delivered in classroom or after school settings. All the materials included USDA's 2005 Dietary Guidelines and My Pyramid. K-3 rd grade levels were identified as having the greatest need for this material and a greater readiness to implement this educational strategy. A ten lesson Kindergarten *Eating Healthy Farm to Fork* curriculum was field-test with three kindergarten classrooms at Rock Creek elementary school. It was then presented at the Statewide FSNEP conference in August 2006 and will be used in Youth FSNEP counties across the state.
  - Additionally a First Grade Eating Healthy From Farm to Fork curriculum was developed. It was field-tested over the summer with summer school and after school programs. It will be piloted in 10 counties beginning in October 2006. All of the new materials were aligned with California Standards and the California Nutrition Education Competencies.

#### *In Relation to Objective 4:*

• We initiated collaborations with CNN garden programs by including members from California for Agriculture in the Classroom, which collaborates with CNN, in the creation of program goals, objectives, and resources related to youth programs conducted by UC Cooperative Extension (see member list of this group at

http://groups.ucanr.org/common/stafflist.cfm?county=5781). Furthermore, **FSNEP** collaborators and CNN employees are both part of the California School Garden website. (http://www.csgn.org). (Please see attachments)\*

\*Junge, S., Johns, M., Heneman, K., and Zidenberg-Cherr, S.A. 2006. Farm to School and School Wellness...Making the Connections. UC ANR Human Resources Conference, San Jose, California.

### *In Relation to Objective 5:*

Staff (including teachers, food service staff, and administrators) and parents participating in the Comprehensive Nutrition and Health Education Program received training on the use school gardens to enhance academic curricula. Teachers and parents of children participating in the "Gardens for Good Nutrition" program also received training and teachers were invited to attend garden workshops at our educational garden site on the UC Davis campus.

### 3. Project results and discussion of results

- Data showed RAMP to be effective at increasing the importance of exercise in the minds of children (p = 0.001), knowledge that the heart pumps blood through the body (p =0.000), and knowledge that computer use and television watching are not exercise (p = 0.024). Correlations were also observed between a child's knowledge of healthy foods and parent reported soda consumption (p = 0.01) and between child's knowledge that computer use and television watching are not exercise and parent reported hours of television watching by their child (p = 0.03). (Please see attachments)\* \*Heneman, K., Junge, S., and Zidenberg-Cherr, S.A. 2006. Reading Across My Pyramid,
  - a nutrition education curriculum, increases the nutrition knowledge of first graders. **Society for Nutrition Education,** San Francisco, California.
- The results from the garden based programs were as follows:
  - Eighty-three children and their parents/guardians participated in the Comprehensive Nutrition and Health Education Program. Results from the Parent Nutrition Survey in Auburn show that in comparison to the beginning of the intervention, at the end of the intervention, Rock Creek elementary school kindergarteners significantly decreased their consumption of soft drinks (p=0.041) (60% vs. 35% yes) and their use of the computer (p=0.011) (0.81 hours vs. 0.33 hours). Results from the Parent Nutrition Survey in Fresno show that in comparison to the beginning of the intervention, at the end of the intervention, American Union Elementary School fourth and fifth graders significantly increased their consumption of fruits (p=0.044) (88% vs. 97% yes) and decreased their consumption of cookies (p=0.000) (88% vs. 56% yes). Results from Rock Creek Elementary School students who took the Child Nutrition Survey showed that the Comprehensive Nutrition and Health Education Program is effective at increasing the nutrition knowledge of kindergartners. Four months after implementation of the Program, significant increases were observed in the number of children who knew that MyPyramid is a tool to assist with dietary choices (p = 0.022) (77% vs. 100% correct),

what plants need to grow (p = 0.031) (71% vs. 92% correct), why milk is important (p = 0.003) (48% vs. 79% correct), and that dancing, not computer use or television watching is a form of exercise (p = 0.031) (52% vs. 75% correct). Results from American Union students who completed the Child Nutrition Survey show that the Comprehensive Nutrition and Health Education Program is also effective at increasing the nutrition knowledge of fourth and fifth graders. Four months after implementation of the Program, significant increases were observed in the number of children who knew what foods are flowers (p = 0.003) (64% vs. 88% correct), what nutrients provide our bodies with energy (p = 0.000) (28% vs. 65% correct), why our bodies need calcium (p = 0.006) (72% vs. 94 % correct), how many food groups were in a meal (p = 0.017) (60% vs. 84 % correct), MyPyramid messages about grains (p = 0.031) (76% vs. 90 % correct) and vegetables (p = 0.044) (86% vs. 94 % correct), what measuring your pulse tells you (p = 0.005) (76% vs. 92 % correct), that running is a form of aerobic exercise (p = 0.000) (26% vs. 70% correct), what an example of a healthy goal is (p = 0.033) (78% vs. 92% correct), and how a food company might try to entice you to buy their food (p = 0.032) (76% vs. 92% correct). A manuscript is being submitted to the Journal of Child Nutrition and Management. (Please see attachments)\* \*Heneman, K., Junge, S., Carter, R., Candelaria, S., Davidson, P., and 2006. School Zidenberg-Cherr, S.A. Based Nutrition Implementation of a School Wellness Program in Selected California Schools. UC ANR Human Resources Conference, San Jose, California.

The "Gardens for Good Nutrition" program reached student, teacher, and parent populations at nine elementary schools in Sacramento and Yolo Programs were well-received and popular with teachers and children, as evidenced in workshop evaluations and enthusiasm shown by schools interested in participating in a third year of "Gardens for Good To begin to gauge the impact of this sort of program on knowledge and attitudes about nutrition, we conducted a very simple pilot evaluation study, administering a pre-test and post-test to two groups of students: four 3<sup>rd</sup> grade classes at AM Winn and three 2<sup>nd</sup> grade classes at These schools were selected for the pilot because they represented our target grade levels, and we worked with the same group of students both in their classroom and in our garden. Students were asked about food groups and plant parts. They were also asked: "Did you eat a fruit or a vegetable yesterday?" and "How often should you eat fruits and vegetables? Findings from both groups showed an increase in the percentage of students who chose the best answer to the question: "How often should you eat a serving of fruits or vegetables?" At AM Winn, 52% of students answered correctly before the intervention and 69% of students answered correctly after the intervention. At Beamer, the percentage increased from 39% to 49%. It was also interesting to see that even before the intervention these students were generally able to identify foods, particularly fruits and vegetables, and place them in the correct food group.

- 76 Youth FSNEP staff were trained at the FSNEP statewide conference on the *Eating Healthy Farm to Fork* curriculum.
- 4. Provide a copy of any publications or reports on your project.
  - Send under separate cover
- 5. Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.)
  - Send under separate cover
- 6. Please complete the table below:
- # Low-income enrolled/educated/completed program: 1023
- # FSNEP eligible clients enrolled/educated/completed program: 1023
- **# FSNEP eligible clients contacted:** 1023 children & 68 teachers and staff from income eligible schools

## For the enrolled/educated/completed program, please fill in the table below:

### **YOUTH**

<b>Ethnicity:</b>		<b>Female*</b>	Male*
	Hispanic	99	99
	<b>African American</b>	2	2
	Asian	7	11
	White	74	83
	Native American	4	
	Other	5	0
	Total	198	200

<sup>\*</sup>We do not have the ethnic breakdown of participants in the Children's Garden program.

## FSNEP FINAL REPORT Collaboration Projects FFY 05/06 (Due Oct 13, 2006)

**Submitted by:** Carol Hillhouse: UC Davis Children's Garden Program Director (SRAIII)

Cary Trexler: Assistant Professor, UC Davis School of Education Jeri Ohmart and Katie Hume, Children's Garden Program Coordinators

**Project:** Gardens for Good Nutrition

**FSNEP Funding:** \$79,435

### 1. Project Goals and Objectives

We had three primary goals for this project in FFY 05-06:

- 1) To promote healthy food choices and improve understanding of good nutrition within the school communities at 7-10 cooperating schools in the Sacramento region.
- 2) To promote the use of school gardens as a tool to enhance nutrition education.
- 3) To strengthen and improve the garden programs at cooperating schools.

We worked towards meeting these objectives by offering the following educational opportunities at the participating schools:

- Worked directly with student populations at each cooperating school to provide basic nutrition education. Hands-on activities addressed the concepts of proportionality, variation and moderation in daily food consumption and the role of fruits and vegetable in a healthy diet.
- Provided field trip opportunities to farm/garden programs at UC Davis to help students understand where food comes from.
- Provided teachers and parents with information about where food comes from, how it grows, and how to prepare healthful snacks.
- Provided training for the teaching staff and parent volunteers within each school to keep their garden programs vibrant and functioning.
- Made clear connections for the teachers between garden-based activities and standardsbased learning so that school gardens could complement academic instructions at schools to their greatest potential.
- Provided teaching materials and other resources that teachers could use to connect garden-based activities and nutrition education. Examples of these materials include *Nutrition to Grow On* (California Department of Education), *TWIGS* (UC Cooperative Extension), *A Child's Garden of Standards* (California Department of Education), and *Kids Cook Farm-Fresh Food* (California Department of Education).

## 2. <u>Description of FSNEP Project: (Please include only the nutrition education portion of the project that was funded by FSNEP)</u>

We worked with nine elementary schools, four in Yolo County and five in Sacramento County. Six of these schools participated in our "Gardens for Good Nutrition" program in FFY 2004-2005, while three were new for this year.

At each school, at least 50% of the student population was eligible for free or reduced-price lunch, with the average being 80%. In addition to the low-income criteria, schools were selected on the basis of their interest in enhanced nutrition education and a school garden program. Two of the selected schools had garden programs that were well-established (LAS, Whitehead); four had gardens that were maintained and used sporadically (AM Winn, Kemble, Bryte, Beamer); and three were in the process of getting a garden started (Birney, Woodbine, Waggoner).

We targeted both adult and student populations at each school with separate program offerings. In general, we worked directly with one to two grade levels of children for the nutrition education components. Adult education was directed to teachers and parents working throughout the school at all grade levels. This allowed for indirect but unquantifiable impact on a larger proportion of the children in the school population.

Table 1. "Gardens for Good Nutrition" Participating Schools FY 2005-2006

Table 1. "Gardens to	r Good Natrition - ra	irucipaung s	CHOOIS F Y Z	JUS-2UU0
School	District	County	Student Populatio n 2004- 2005	% Free or Reduced Lunch 2004-2005
Alice Birney	Sacramento City	Sacrament		
	USD	0	242	71.10%
AM Winn	Sacramento City	Sacrament		
	USD	O	484	89.60%
Kemble	Sacramento City	Sacrament		
	USD	O	535	93.90%
Language	Sacramento City	Sacrament		
Academy of	USD	О		
Sacramento (LAS)			237	79.70%
Woodbine	Sacramento City	Sacrament		
	USD	0	451	93.50%
Bryte	Washington USD	Yolo	414	87.70%
Waggoner	Winters JUSD	Yolo	377	60.90%
Beamer	Woodland JUSD	Yolo	421	70.50%
Whitehead	Woodland JUSD	Yolo	442	73.00%
			Total:	Average:
			3,603	79.9%

#### Adult Education

Garden and Nutrition workshops at school sites

We planned and provided a two-hour garden and nutrition workshop for adults at six of the school sites. The number of attendees at these workshops ranged from 5 to 12, with a total of 46 adults served. Most participants were classroom teachers; however, some parent volunteers and staff from an after-school program also participated in the workshops. At two of the adult workshops we had significant participation from parents in Hmong (Alice Birney) and Hispanic (LAS) ethnic groups. We also provided orientation meetings at two of the sites that were new to "Gardens for Good Nutrition" this year. Workshops for adults were offered to all schools but three schools did not choose to participate in this option due to scheduling difficulties or lack of staff involvement.

All of the workshops included a section on nutrition, which introduced teachers to the new MyPyramid and gave them ideas for incorporating nutrition education into their curriculum. We also provided an opportunity for teachers to taste a variety of unusual fruits, vegetables and other plant-based foods.

The gardening content of the workshop varied with the specific needs and interests of each school. In general, we provided technical information about gardening and offered hands-on activities in the garden setting. Workshops were also designed to encourage team-building amongst school staff and parent volunteers around garden development and use. We drew from tried and true garden-based learning activities and teaching techniques we have developed and/or used over several years, using readily-available garden-based learning curriculum as sources of age-appropriate activities for children.

Participant evaluations of the workshops were very positive, with most teachers indicating that they would incorporate some of the nutrition education materials and activities. A comment from a teacher-participant at the Whitehead Elementary workshop on May 4, 2006: "I liked the clear, concise delivery of interesting information and suggestions for activities. I will use a myriad of the ideas shared, such as the new food pyramid and food photo cards. I appreciate the amount of time spent exploring our ideas, questions and concerns."

**Table 2. Number of Adults Served at Educator Workshops** 

School	Number of Attendees for Garden-Nutrition Workshops at School Sites
Alice Birney	9
AM Winn	8
Kemble	6
Language Academy of Sacramento	12
Woodbine	-
Bryte	-
Waggoner	-
Beamer	5
Whitehead	6
Totals:	46

### Garden-based learning workshops at UC Davis

With support from the California Department of Education, Nutrition Services Division, we have been offering school garden workshops at our educational garden site on campus since 1998. Each "Gardens for Good Nutrition" school was invited to send participants to these workshops, with workshop registration fees waived for up to two attendees per school per workshop. Overall, we had nine participants from "Gardens from Good Nutrition" schools attend these workshops, with one individual attending multiple sessions. The topics offered during FFY 05-06 were:

- Tomato Time: A Year's Worth of Activities for 2<sup>nd</sup> Graders (March 2006) 1 GGN participant
- Water, Weeds and Wigglers: Basic Gardening Concepts for Schools (Sept 2006) 6
   GGN participants
- Where the Wild Things are: Insects and Other Garden Critters (Sept 2006) 1 GGN participant
- Strategies for Success: Hear It From School Gardeners (Sept 2006) 4 GGN participants

#### **Child Education**

### Nutrition education for students at the school site

Our program staff provided nutrition education directly to 628 students at eight of the participating schools. Our nutrition education was focused on  $2^{nd}$  and  $3^{rd}$  grade students, although at some schools, we also worked with kindergarten and  $1^{st}$  grade classes. We typically spent 30-45 minutes with each class.

The focus of the lessons was to identify food groups and to emphasize the importance of eating fruits and vegetables every day. We used MyPyramid as a teaching tool at all of the schools. As part of the lessons, all students had the chance to taste a variety of fresh fruits and vegetables. Some specific examples about how the nutrition education was presented are below.

At AM Winn, four 3<sup>rd</sup> grade classes participated in activities that emphasized eating a variety of fruits and vegetables every day. Discussion focused on the fruit and vegetable color groups, and students did a language arts activity related to tasting new or unusual fruits and vegetables.

At Waggoner, we participated in a school-wide event, where 1<sup>st</sup> through 3<sup>rd</sup> grade classes rotated through a variety of stations to learn about different aspects of farming and agriculture. Our two stations were seed-planting and the food pyramid relay, an activity designed to help students understand food groups and the food guide pyramid.

First grade students at Whitehead and Bryte were introduced to the food pyramid through a familiar storybook, *The Very Hungry Caterpillar*. Students sorted the food items mentioned in the story into their appropriate food groups and then tasted many of the fruits included in the story.

Nutrition education for 2<sup>nd</sup> graders at the Language Academy of Sacramento included a review of the food pyramid and the pyramid relay game, followed by a tasting of colorful fruits and vegetables representing the five color groups.

## Student field trips to the UC Davis Children's Garden Program

Six of the participating schools sent students to the UC Davis Children's Garden Program for field trips, giving 428 students the chance to see fruits and vegetables growing in a garden and farm setting. Three schools did not because they joined the program later and/or could not arrange transportation.

UCD Children's Garden Program staff and trained UCD student interns led the tours, which included hands-on, educational activities and opportunities to harvest and eat fresh fruit and vegetables. Some classes also visited the Market Garden, an adjacent five-acre student-run farm that grows a huge variety of vegetables and some fruits throughout the year.

In small groups of 10 or 12, each child:

- took a garden tour, looking for edible plants and tasting cherries and berries.
- picked spinach leaves and edible flowers to make a healthy vegetable snack.
- learned how herbs may be used in cooking and created an herb bouquet to take home.
- collected and observed insects to learn which ones might be beneficial in the garden and which were pests.
- participated in the food pyramid relay.

**Table 3. Number of Students Served** 

School	Nutrition Education for Students at School Sites	Field Trip to UCD Children's Garden Program
Alice Birney	-	-
AM Winn	80	80
Kemble	60	ı
Language	38	38
Academy of		
Sacramento		
Woodbine	60	-
Bryte	75	75
Waggoner	200	120
Beamer	55	55
Whitehead	60	60
Totals:	628	310

### 3. Project results and discussion of results.

In its second year, "Gardens for Good Nutrition" reached student, teacher, and parent populations at nine elementary schools in Sacramento and Yolo counties. Programs were well-received and popular with teachers and children, as evidenced in workshop evaluations and enthusiasm shown by schools interested in participating in a third year of "Gardens for Good Nutrition."

To begin to gauge the impact of this sort of program on knowledge and attitudes about nutrition, we conducted a pilot evaluation study, administering a pre-test and post-test to two groups of students: four 3<sup>rd</sup> grade classes at AM Winn and three 2<sup>nd</sup> grade classes at Beamer. These schools were selected for the pilot because they represented our target grade levels, and we worked with the same group of students both in their classroom and in our garden. Students were asked about food groups and plant parts. They were also asked: "Did you eat a fruit or a vegetable yesterday?" and "How often should you eat fruits and vegetables?

Findings from both groups showed an increase in the percentage of students who chose the best answer to the question: "How often should you eat a serving of fruits or vegetables?" At AM Winn, 52% of students answered correctly before the intervention and 69% of students answered correctly after the intervention. At Beamer, the percentage increased from 39% to 49%.

It was also interesting to see that even before the intervention these students were generally able to identify foods, particularly fruits and vegetables, and place them in the correct food group.

Table 4. Results from Pre- and Post-Test at AM Winn (77 respondents)

		Total	]	Total
	Number of	responses	Number of	responses
	responses	by % on	responses	by % on
	on <b>Pre-Test</b>	Pre-Test	on <b>Post-test</b>	Post-test
Which of these				
foods is a				
vegetable?				
Milk	0	0.00%	1	1.30%
Apple	8	10.39%	4	5.19%
Peas	69	89.61%	68	88.31%
broccoli	74	96.10%	70	90.91%
Bread	0	0.00%	2	2.60%
Which of these is				
the root of the				
plant?				
Corn	24	31.17%	12	15.58%
Squash	17	22.08%	6	7.79%
Carrot	53	68.83%	60	77.92%
Lettuce	24	31.17%	25	32.47%
Radish	70	90.91%	61	79.22%

Did you eat a fruit or a vegetable yesterday?				
Yes	70	90.91%	72	93.51%
No	7	9.09%	5	6.49%
How often should you eat fruits and vegetables?				
once a week	5	6.49%	2	2.60%
a few times a				
week	11	14.29%	10	12.99%
once a day	20	25.97%	11	14.29%
a few times a day	40	51.95%	53	68.83%

Table 5. Results from Pre- and Post-Test at Beamer (40 or more respondents)

		Total	•	Total
	Number of	responses	Number of	responses
	responses	by % on	responses	by % on
	on Pre-Test	<b>Pre-Test</b>	on Post-test	Post-test
1. Which of these				
foods is a				
vegetable?				
Milk	1	1.92%	0	0.00%
Apple	10	19.23%	5	12.50%
Peas	49	94.23%	39	97.50%
broccoli	50	96.15%	39	97.50%
Bread	1	1.92%	1	2.50%
2. Which of these				
foods is a fruit?				
strawberry	51	98.08%	39	97.50%
Crackers	0	0.00%	1	2.50%
ice cream	1	1.92%	1	2.50%
Banana	46	88.46%	39	97.50%
Carrot	20	38.46%	12	30.00%
3. How often				
should you eat				
fruits and				

vegetables?				
once a week	5	9.62%	2	5.41%
a few times a				
week	8	15.38%	5	13.51%
once a day	20	38.46%	11	29.73%
a few times a day	20	38.46%	18	48.65%

Our work with adult populations was evaluated by participants and determined useful. However, actual impact of these programs on teacher behavior or action has not been measured. This is possible in subsequent years of the program through follow-up studies and contact with the schools in which we can observe and quantify changes in nutrition concepts taught and in development and use of school gardens. This will give us a clearer picture of impact of our adult education on entire school populations that are not reached directly through our student nutrition education.

We are in the process of receiving IRB approval to increase the research component of this project during our third year. We will work with fewer schools, but increase the number of our visits to each school. Our research design includes two pre-tests and a post-test, with follow-up discussion conducted in focus groups.

## **4. Provide a copy of any publications or reports on your project.** None at this time.

## 5. Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.)

The following lesson plans were used with students or presented to educators and adapted or developed by UC Davis Children's Garden Program for "Gardens for Good Nutrition". These are attached to this document.

- o Pyramid Relay
- o Fruit and Vegetable Color Wheel
- o Plant Part Art
- o Nutrition Resource List for Educators
- o Tasting Sheet

The pre- and post-test instrument we used with students is also attached.

### 6. Ethnic Groups Served

"Gardens for Good Nutrition" targeted both adult and student populations at each school with programs as described above. In general, we worked directly with one to two grade levels of children for the nutrition education components. Adult education was directed to teachers and parents working throughout the school at all grade levels. This allowed for indirect but unquantifiable impact on a larger proportion of the children in the school population.

See Table 2 for number of adults directly served. See Table 3 for number of children directly served. See Tables 1 and 6 for total school populations and ethnicities.

Table 6. Ethnicity of Student Populations at "Gardens for Good Nutrition" Schools

School	Student Enrollment	% Free or Reduced Price	Hispanic	African American	Asian includes	White	Native American	Other
		Meals			Filipino			
					and D:C			
					Pacific			
Al' D'					Islander			
Alice Birney			<b>5</b> 0 (22 20 ()	51 (01 10/)	53 (21.9%)	40 (10 00 ()	<b>5</b> ( <b>3</b> 10 ()	<b>7</b> (2 00 ()
Sacramento			78 (32.2%)	51 (21.1%)		48 (19.8%)	5 (2.1%)	7 (2.9%)
City USD	242	71.10%						
AM Winn					47 (9.7%)			
Sacramento			89 (18.4%)	124 (25.6%)		213 (44.0%)	1 (0.2%)	10 (2.1%)
City USD	484	89.60%						
Kemble					125			
Sacramento			231 (43.2%)	144 (26.9%)	(23.3%)	22 (4.1%)	3 (0.6%)	10 (1.9%)
City USD	535	93.90%						
Language					5 (2.1%)			
Academy of					, , ,			
Sacramento			171 (72.2%)	10 (4.2%)		42 (17.7%)	1 (0.4%)	8 (3.4%)
Sacramento						,		, ,
City USD	237	79.70%						
Woodbine					167 (37%)			
Sacramento			152 (33.7%)	81 (18.0%)	, ,	41 (9.1%)	5 (1.1%)	5 (1.1%)
City USD	451	93.50%						,
Bryte					32 (7.8%)			
Washington			130 (31.4%)	12 (2.9%)		227 (54.8%)	1 (0.2%)	12 (2.9%)
USD	414	87.70%		, ,		,		
Waggoner			224 (50, 40/)	0 (0 00/)	2 (0.99/)	150 (20 90/)	0 (0 00/)	0 (0 00/)
Winters JUSD	377	60.90%	224 (59.4%)	0 (0.0%)	3 (0.8%)	150 (39.8%)	0 (0.0%)	0 (0.0%)
Beamer	421	70.50%	336 (79.8%)	2 (0.5%)	10 (2.4%)	60 (14.3%)	2 (0.5%)	11 (2.6%)

Woodland JUSD								
Whitehead Woodland	140	<b>72</b> 000/	259 (58.6%)	8 (1.8%)	15 (3.4%)	147 (33.3%)	6 (1.4%)	7 (1.6%)
JUSD	442	73.00% Average: 79.9%						

School summary data was obtained from the California Department of Education's DataQuest program for the 2004-2005 school year.

## FSNEP FINAL REPORT FFY 05/06 (Due 10/13/06)

Name:	Kathryn G.	Dewey			
Title of F	SNEP Project:	Education	nal Intervent	tion to Modify	Infant Feeding
Amount o	of FSNEP Fund	ing: \$102	2,700		

### 1. Project Goals and Objectives:

Our goals were to develop and evaluate educational strategies to modify infant feeding practices that predispose to child obesity.

During the second year of this project, we had two specific objectives:

1) To evaluate the effectiveness of the educational messages related to solid food introduction and other infant feeding practices that we began to develop during the first year of this project.

To achieve this objective, we conducted a series of focus groups and classes to develop key educational messages and assess how these messages were interpreted and which method of message delivery was most acceptable and effective. The classes were designed using a variety of techniques for message delivery (demonstrations, interactive techniques, etc). Classes were conducted in both English and Spanish. Using the information from the focus groups, topics were prioritized to accommodate the short time available in the classes (15 to 30 minutes). The final topics included in the classes focused on mothers' ability to respond appropriately to their infants' behavior, including normal infant behavior (e.g. sleep patterns), cues used to judge if an infant is adequately nourished and alternative means of soothing infants other than feeding. Each participant was given a pre- and a post-test questionnaire. Responses were to be used to develop the final educational materials.

2) To examine influences on the timing of introduction and quantities consumed of juice and sweetened beverages during the first year of life.

Early in the development process, we realized that many of the inappropriate infant feeding practices (excessive formula use, early introduction of solids, and excessive use of sweetened beverages) identified in this population were instigated by the same issues, namely the infants' behavior. In other words, if mothers thought their infants were crying or waking too much, they were inclined to feed their infants inappropriately if they felt that it would alter their infants' behavior. Further, Spanish speaking mothers emphasized the need for infants to "taste" foods and fluids before they reach the age when solids should be introduced. Therefore, the focus groups centered upon the larger issue of infant behavior and mothers' beliefs about how foods and fluids in general affect infant behavior and development, not just juices and sweetened beverages.

## 2. <u>Description of FSNEP Project:</u> (Please include only the nutrition education portion of the project that was funded by FSNEP)

Focus groups were convened with WIC participants who had infants between 0 and 6 mo of age. These groups were convened in both English and Spanish and focused on mothers' beliefs about how foods and fluids affect their infants' behavior. Several topics were discussed, such as offering multiple types of foods (e.g., breast milk <u>and</u> formula, formula <u>and</u> cereal, formula, cereal <u>and</u> jarred foods), when and how much crying was acceptable, alternatives to offering food in order to console a fussy infant, and, specifically in the Spanish-speaking groups, defining and quantifying what constitutes a "taste" of solid foods.

As a result of these focus groups, class modules were developed and were based on the Experiential Learning Cycle (ELC) of Pfeiffer and Jones. This 5-step learning cycle focuses on the needs of the adult learner. Topics included normal infant sleep-wake cycles, defining infant communication cues, and how parents might appropriately respond to these cues other than by feeding if the infant is not hungry. The examples used in the discussions varied depending on whether the class was attended by breastfeeding or formula-feeding participants.

### 3. Project results and discussion of results.

### Focus groups

Four focus groups were initially convened in English. Key educational messages were developed from these focus groups, and these messages were then tested in two additional focus groups. A similar process was followed for the Spanish-speaking population. Fifty English-speaking and 29 Spanish-speaking participants were reached. In general, the English-speaking groups exhibited frustration with their infants' behaviors and were concerned with what was causing those behaviors. The explanations of infant communication cues and what constitutes normal infant sleep-wake cycles were considered very helpful. In the Spanish-speaking focus groups, the practice of offering infants "tastes" of solid foods before 4 mo of age emerged. This practice has been reported in other WIC populations of Mexican origin. Participants believe that infants must be given "tastes" of foods in order to prepare their bodies for introduction of foods at 4-6 mo of age. We attempted to quantify these "tastes", speculating that they might be large enough to contribute significantly to the infants' caloric intake. However, the participants reported serving sizes of ~ a teaspoon a few times a day, which is probably negligible.

#### Class Evaluation

Eleven classes were held in English (87 participants, mean 7.9 per class) and eight were held in Spanish (63 participants, mean 7.8 per class). Thirty three participants were formula-feeding and 117 were breastfeeding. Formula-feeding participants were significantly more likely to be English-speaking (p <0.0001). Pre- and post-tests were used to evaluate changes in participant knowledge and beliefs about infant behavior and nutrition. The questionnaire was modified early in the pilot testing; thus, not all participants answered all of the questions on the pre- and

post-tests. In addition to questions related to knowledge attained in the class, participants were also asked to identify which class topics were new to them.

To assess participant responses to the message that some waking at night is a normal event, we asked the question, "How many times do babies wake up at night, when they are 1 month old?" Results (change in correct response from the pre- to post-test) for this question are reported in Table 1. In the English-speaking group, the percentage correct increased from 49.4% (40/81) to 80% (68/85). The pre-test mean number of wakings reported by the English-speaking participants was 3.5, with a range of 1-7. The post-test mean for this group was 3, with a range of 0-7. In the Spanish-speaking group, the percentage correct increased from 41.9% (26/62) to 75.4% (46/61). The pre-test mean reported by the Spanish-speaking participants was 3.8, with a range of 1-8. The post-test mean was 3, with a range of 1-6. There were no significant differences in pre-test or post-test mean number of wakings by language or feeding mode.

To assess participant responses to the message that a normal amount of waking at night is beneficial to infants, we presented a statement, "Quiet sleep is more important than active sleep for babies' brain development", and asked participants to circle "true" or "false". The correct response was "false". This question was not finalized until the test was revised and therefore the number of responses is lower than for the previous question. Table 2 outlines the results by language group. English-speaking participants were significantly more likely than Spanish-speaking participants to answer the question correctly on the pre-test (p<0.0001). English-speaking participants were also significantly more likely than Spanish-speaking participants to answer correctly on the post-test (p=0.029). The English-speaking group improved by 14.5% and the Spanish-speaking group improved by 35.2%. Table 3 shows responses to this question by feeding mode. There was no difference by feeding mode at baseline. However, breastfeeding participants were more likely than formula-feeding participants to respond correctly to the question on the post-test (p=0.04).

To assess participant responses to messages about infant cues, we presented the following incomplete sentences, "When your baby gets fussy after playing quietly with you, he" and "When your baby turns away or looks away from you, he is:" and offered three choices for each (Tables 4 and 5). These questions were asked on the pre- and post-test for 24 English-speakers, but change in knowledge was not detectable, as most of the English-speaking participants appeared to already understand these concepts. We subsequently asked these questions only on the pre-test. Due to time constraints, we utilized the same version in the Spanish-speaking groups and thus only have pre-test results in this language group. The English-speaking group was more likely than the Spanish-speaking group to choose the correct response on the pre-test for both questions (p=0.006, <0.0001 for these two questions, respectively). Responses did not differ by feeding mode.

To assess participant responses to messages about proper responses to infant communication cues, we presented the incomplete statement, "When your baby is fussy, the first thing you should do is:", and offered three choices. Responses are shown in Table 6. There were no significant differences in responses by language group or feeding mode on the pre-test. Though both groups improved on the post-test, the English-speaking group was significantly more likely

than the Spanish-speaking group to correctly respond on the post-test (p=0.01). There was no difference in correct answers by feeding mode on the post-test

#### Discussion

Knowledge about normal infant waking at night was increased in both language groups. Though the classes did not impact the range in the number of times parents thought their infants would wake up, there was an increase in understanding of what constitutes normal waking. More than one-third of participants indicated that this was a new concept to them. In addition, knowledge that active sleep is not only normal, but desirable and healthy, was increased in both groups. Though the English-speaking group was more likely to answer correctly on the pre-and post-test question about active sleep, a significantly higher percentage of mothers in the Spanish-speaking group changed from an incorrect to a correct response. Almost 70% of Spanish-speaking mothers reported that the concept of active sleep was new to them. It is possible that increasing knowledge about normal infant sleeping patterns may decrease stress in new mothers and reduce over-feeding. Because stress over sleep deprivation occurs early in the postpartum period, these concepts ideally should be discussed prenatally and reinforced postpartum.

Infant cues are an important communication tool, especially when language has not yet developed. However, interpreting these cues can be difficult and is not always intuitive. It is possible that misinterpretation of disengagement cues can lead to feeding when the infant is not hungry. In fact, between a quarter and a third of participants reported that fussiness after a time of quiet play is more likely a cue for hunger than for fatigue. In addition, between 8% and 27% of caregivers misinterpreted a disengagement cue to mean that the infant wanted to get away from the caregiver, and between 5% and 39% interpreted this cue to mean that the infant wanted to play a stimulating game. English-speakers tended to understand the example disengagement cues more often than Spanish-speakers. Though this could be a result of inadequate translation of the questions, Spanish-speakers reported more frequently than English-speakers that the concepts about these infant cues were new to them. Though it seems intuitive that infants are soothed by gentle, repetitive movements and sounds, this concept was reported to be new by a surprising percentage of mothers in both language groups. Almost one-fifth of English-speaking participants and more than one-third of Spanish-speaking participants reported that this was new information.

The Spanish version of the class was interpreted as the class was being delivered. This is not the common practice in WIC clinics, and the concepts may have been better understood had we been able to deliver the classes directly in Spanish.

We conclude that the classes increased knowledge about normal infant sleep-wake cycles, infant cues, and techniques for soothing other than offering food. Significant increases in knowledge related to the target messages were seen in both groups. The class was well-received, despite some less-palatable concepts (e.g. that infant night-waking is normal and even desirable). The concepts could be easily integrated into existing WIC classes and could possibly be incorporated into other nutrition education materials that serve this population. However, further research needs to be conducted to assess behavioral outcomes in both language groups and to determine how these concepts are accepted and understood among other populations.

In prepara			
m prepara	tion		
5. Provide instrumen	1 0	s that were adapted	/developed (lesson plans, evaluation
Script for b	n English and Spanish (2) preastfeeding and formula ttest version 4		
6. Please c	omplete the table below	<b>7:</b>	
# FSNEP 6 # FSNEP 6	ome enrolled/educated/eligible clients enrolled/eligible clients contacted rolled/educated/comple	educated/completed: 150	
We did not	collect these data.		
We did not  Ethnicity:	collect these data.	<u>Female</u>	<u>Male</u>

#### References

- 1. Torres F. Anderson C. The normal EEG of the human newborn. J Clin Neurophysiol. 1985;2:89-103.
- 2. White C, Simon M, Bryan A. Using evidence to educate birthing center nursing staff about infant states, cues, and behaviors. MCN Am J Matern Child Nurs. 2002; 27:294-8.
- 3. Heinig MJ, Follett JR, Ishii KD, Kavanagh-Prochaska K, Cohen R, Panchula J. Barriers to compliance with infant-feeding recommendations among low-income women. J Hum Lact. 2006;22:27-38.

Table 1. Responses to the question: "How many times do babies wake up at night, when they are 1 month old?"

Times waking per night	English		Spanish	
	Pre-test	Post-test	Pre-test	Post-test
	(n=81)	(n=85)	(n=62)	(n=61)
Less than "normal" (<2)	3 (3.7%)	1 (1.2%)	2 (3.2%)	1 (1.6%)
"Normal" (2-3)	40 (49.4%)	68 (80%)	26 (41.9%)	46 (75.4%)
Greater than "normal" (>3)	38 (46.7%)	16 (18.8%)	34 (54.8%)	14 (23.0%)

Table 2. Responses, by language group, to the question: "Quiet sleep is more important than active sleep for babies' brain development"\*

Language	Response	Pre-test	Post-test	Percent change
English	True	31 (44.9%)	21 (30.4%)	14.5% increase in correct response
	False	38 (55.1%) <sup>a</sup>	48 (69.6%) <sup>a</sup>	
Spanish	True	51 (83.6%)	30 (48.4%)	35.2% increase in correct response
	False	$10 (16.4\%)^{b}$	$32 (51.6\%)^{b}$	

<sup>\*</sup> Differing superscripts indicate significant differences between language groups (p<0.05).

Table 3. Responses, by feeding mode, to the question: "Quiet sleep is more important than active sleep for babies' brain development"\*

Feeding	Response	Pre-test	Post-test	Percent change
mode				
Formula	True	20 (64.5%)	17 (54.8%)	9.7% increase in correct response
	False	11 (35.5%)	14 (45.2%) <sup>a</sup>	
Breast milk	True	62 (62.0%)	34 (34.3%)	28.3% increase in correct response
	<b>False</b>	37 (37.4%)	65 (65.7%) <sup>b</sup>	-

<sup>\*</sup> Differing superscripts indicate a significant difference between feeding groups at post-test (p<0.05).

# Table 4. Responses to the question: "When your baby gets fussy after playing quietly with you, he", by language group

Response chosen Pre-test only\* p-value

Is coming down with a cold  Is tired because it is hard work for babies to	English (n=72) 1 (1.4%) 52 (72.2%) <sup>a</sup>	Spanish (n=58) 10 (17.2%) <b>29 (50%)</b> <sup>b</sup>	0.0019
play Is hungry because babies need to eat all the time	19 (26.4%)	19 (32.8%)	

<sup>\*</sup> Among those circling only one response

Differing superscripts indicate a significant difference between language groups at pre-test.

Table 5. Responses to the question: "When your baby turns away or looks away from you, he is", by language group.

Response chosen	Pre-tes	p-value	
	English (n=72)	Spanish (n=59)	< 0.0001
Telling you he wants to get away from	6 (8.3%)	16 (27.1%)	
you			
Telling you he wants to play peek-a-boo	4 (5.6%)	23 (39.0%) 20 (33.9%) <sup>b</sup>	
Telling you he needs a break	62 (86.1%) <sup>a</sup>	20 (33.9%) <sup>b</sup>	

<sup>\*</sup> Among those circling only one response

Differing superscripts indicate a significant difference between language groups at pre-test.

Table 6. Responses to the question: "When your baby is fussy, the first thing you should do is", by language group\*

Response chosen	English		Spanish		
	Pre-test	Post-test	Pre-test	Post-test	
Offer him food, just to make sure he's not hungry	25 (34.7%)	9 (12.2%)	25 (43.1%)	18 (29.5%)	
Put your baby down for a nap, just to make sure he's not tired	7 (9.7%)	6 (8.1%)	7 (12.1%)	9 (14.8%)	
Look for cues to tell you	40 (55.6 %)	59 (79.7%) <sup>a</sup>	26 (44.8%)	34 (55.7%) <sup>b</sup>	
what is wrong					

<sup>\*</sup>Differing superscripts indicate a significant difference between language groups at post-test (p<0.05).

Table 7. Topics new to participants, as assessed at post-test

Topic	English (n=51)	Spanish (n=63)
How often babies wake up at night when they are	17 (33.3%)	29 (46.0%)
young		
How many hours babies actually sleep	20 (39.2%)	37 (58.7%)
Active sleep is good for babies	25 (49.0%)	44 (69.8%)
Babies have to work hard to pay attention	11 (21.6%)	23 (36.5%)
Babies use cues to help them communicate	15 (29.4%)	35 (55.6%)
When babies need soothing, it can take a long time	9 (17.6%)	21 (33.3%)

to calm them Babies like repetition, like rocking and singing, to 9 (17.6%) 27 (42.9%) calm them

## FSNEP FINAL REPORT FFY 05/06 (Due 9/29/06)

Name:	Francene Steinberg	Ph.D., R.D.
Title of	FSNEP Project: Latino	o Women's Healthy Living Project
Amoun	t of FSNEP Funding: _	\$41,728

#### 1. Project Goals and Objectives:

The overall goal of this collaborative project is to translate proven health promotion strategies into a culturally appropriate nutrition education and lifestyle intervention in a low-income Latino population who are at risk for developing chronic disease. The <u>first objective</u> is to conduct individual interviews and focus groups with women who have recently had gestational diabetes (GDM), the appearance of diabetes only during pregnancy. The <u>second objective</u> is to develop and validate a survey based on the information derived from the focus groups, and to adapt a health promotion curriculum. Accomplishment of these two objectives will lay the groundwork for the <u>third and final long-term objective</u> which will be to recruit participants into and initiate an educational intervention which is culturally appropriate and emphasizes healthy lifestyle activities and nutrition information for the target audience.

## 2. <u>Description of FSNEP Project: (Please include only the nutrition education portion of the project that was funded by FSNEP)</u>

### Objective 1

Focus groups: Issues explored were current dietary and exercise behaviors, perception of diabetes risk and cultural practices and beliefs. Participants included women with and without gestational diabetes (GDM) (women without GDM were allowed to participate due to difficulty in recruiting enough with GDM to participate in focus groups). Benefits and barriers to changes, locus of control and self-efficacy were intertwined with the above topics. Focus groups continued until no new information was offered. Each meeting was transcribed, translated and then back-translated to insure accurate translations. Once the transcription and translation was completed, comments were complied into common themes and analyzed by two researchers using the N6 qualitative data analysis program.

After analysis of the focus group results, it was apparent that more work needed to be done specifically in women with GDM. Therefore, Latinas with a history of GDM have been interviewed individually in their homes and the results have not yet been analyzed. The interview script differs from the focus group script in that is addresses what women believe a "Healthy Diet" or "Balanced diet" to be (see results) and includes more questions regarding type 2 diabetes education during pregnancy.

### 3. Project results and discussion of results.

Results indicate that many women are aware that overweight, poor diet and lack of physical activity are risk factors for type 2 diabetes, and many believe that strong emotions can also be responsible. Many women are knowledgeable regarding weight loss strategies, understand that they need to eat more fruit and vegetables and eat less fat, but some feel constrained by cultural expectations, financial barriers, lack of motivation and cooking skills. Women frequently stated that eating a "balanced diet" was a healthy diet, but often without specifics, leaving the project leader without a firm grasp of what the women understand a "balanced diet" to be and further raising the question of what specific nutrition information these women understand and if they understand a "balanced diet" to be different than what the nutrition community defines as a balanced diet. Some women clearly expressed the self-efficacy needed to make dietary changes regardless of their situation in life and others did not. Women offered insight into the information, education methods and delivery mode they would need to be successful in a diabetes prevention program. Some women stated that they would like a diabetes prevention intervention to be taught at WIC since they are already there on a regular basis. Others felt that classes taught at churches or in homes would be better for them.

Four themes appeared to encompass most focus groups, including: Family, Lifestyle, Motivation and "Tell Me What to do". These four themes therefore need to be included and interwoven into any intervention designed for this population. For example, it was obvious from the discussion that family is central to these women's identities and that any intervention would need to encompass her role as a mother and/or wife.

While 45 women were recruited for the focus groups, less than half had been diagnosed with GDM. Due to difficulty in recruiting and the realization that more qualitative work was needed after analysis of the focus groups, objective 2 and 3 were not completed. Therefore, individual interviews in Latino women with a history of GDM have been done. Data from the interviews is being analyzed, and these results will provide a firm basis from which to begin an intervention. From our work in this area, it is clear that there is a need for culturally appropriate nutrition interventions in this population.

### 4. Provide a copy of any publications or reports on your project.

Abstract for the 2006 Experimental Biology meetings, see attached.

5. Provide a	copy of any	materials that	were adapted	d/developed (	lesson plans,	evaluation
instruments.	etc.)					

N/A

6. Please comple	ete the	table	below:
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Please note,	'nrogram'	is	considered	to	he	focus	groups	and	inter	rviews
I icuse noic,	program	u	constacted	$\iota \cup$	$\nu$	10000	SIUUDB	$\alpha i \alpha$	uiuci	VICTV D

# Low-income enrolled/educated/con	npleted program: <u>21                                    </u>		
# FSNEP eligible clients enrolled/edu	icated/completed program:	21	
# FSNEP eligible clients contacted:	~ 60		

For the enrolled/educated/completed	l program, please fill in the table belo
-------------------------------------	--

Ethnicity:		<u>Female</u>	<b>Male</b>
	Hispanic African American Asian White Native American Other		<u>2</u> 
	Total	48	2

## FSNEP FINAL REPORT FFY 05/06 (Due 9/29/06)

Name	Lucia	Kaiser
name:	Lucia	Naiser

**Title of FSNEP Project:** Nutrition Education and Physical Activity Promotion for Adolescents

Amount of FSNEP Funding: \$5000

#### 1. Project Goals and Objectives:

The goal of this project was to gain insight into the infant and toddler feeding practices of low-income Latino families who are Food Stamp participants or Food Stamp eligible. This information is needed to able to train staff and develop nutrition education materials and messages for FSNEP parents of young children. While many programs target preschool children, there is currently a serious gap in knowledge pertaining to the feeding practices of toddlers, especially from ethnically diverse backgrounds.

### Two objectives were proposed for this project:

- 1) To explore (qualitatively) child-feeding practices of Mexican Americans with children aged 1-3 years to identify factors that contribute to the development of overweight (funded by the Pfeiffer matching funds)
- 2) To measure relevant child-feeding practices, anthropometry, and dietary patterns in a larger sample of Mexican-American families (funded by the FSNEP matching funds).

## 2. <u>Description of FSNEP Project: (Please include only the nutrition education portion of the project that was funded by FSNEP)</u>

A bilingual FSNE educator was hired and funded by this project to interview Latina mothers with young children in Ventura County. We conducted a two-day training in mid-March on the recruitment and interviewing procedures. Each interview lasted about 1 to 1½ hours and covered topics related to past feeding practices during infancy and current child feeding practices. Although all of the contacts were individual, the educator provided outreach invitation to each mother to participate later on in a regular FSNE group session. From the interviews coded to date, 20% of the population reached is currently enrolled on the Food Stamp Program (FSP); most of the remainder is presumed to be FSP-eligible.

### 3. Project results and discussion of results.

In the qualitative phase of the study (objective #1), five major themes emerged. Three themes describe a distinct pattern of child feeding practices in infancy and again during the toddler phase. In general, child-feeding practices in this group deviate from current recommendations set

forth by the American Academy of Pediatrics (AAP). The key finding is that there is a strong tendency to cater to the child's food preferences and demands. Specifically, results indicate child-feeding practices contradict current recommendations regarding:

- 1. Timing and introduction of solid foods in infants. Here, Latina mothers often expressed that it was important to get infants used to tasting and trying foods early, with some women explaining that this would help 'build' the stomach. One woman made it very clear that the WIC recommendation to wait six months before introducing foods was inappropriate.
- 2. Transition from an infant's on-demand type feeding to a more structured family-meal pattern. Mothers most often fed their child whenever the child indicated a desire for food or drink and less often fed the child when other family members or the mother herself ate. Although it seemed evident that most toddlers had three meals and various snacks, it was not evident that these eating episodes occurred on a structured schedule or alongside family habits.
- 3. Repeated exposure to novel foods. Conversely, mothers purposely avoided foods their children disliked and often exposed their toddlers to new foods with the purpose of finding foods they liked. Women most often indicated that they decided what to feed their toddlers based on their child's preference and less often fed the toddler a meal that was prepared with the family's preferences in mind. However, it was not uncommon to have the mother prepare something else if the toddler refused the family meal
- **4. Provide a copy of any publications or reports on your project.** To date, we have not published any papers nor written reports on this project. Some of the qualitative findings were discussed in a general session presented at last year's American Dietetic Association meeting.
- **5.** Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.) We are attaching a copy (in English) of the toddler feeding practices instrument developed during this project.

o. i icase co	implete the table below	•	
# FSNEP el	me enrolled/educated/eligible clients enrolled/ ligible clients contacted	educated/complete	
For the enr	olled/educated/comple	ted program, pleas	se fill in the table below:
<b>Ethnicity:</b>		<b>Female</b>	<u>Male</u>
	Hispanic African American	100%	
	Asian White		<u> </u>

6 Please complete the table below.

Native American	 
Other	 
Total	

## FSNEP FINAL REPORT FFY 05/06 (Due 9/29/06)

**Name:** Mical Shilts, Marilyn Townsend, Anna Martin, Cathi Lamp, Dorothy Smith, Marcel Horowitz, Lenna Ontai

**Title of FSNEP Project:** Nutrition Education and Physical Activity Promotion for Adolescents **Amount of FSNEP Funding:** \$216,627

- <u>1. Project Goals and Objectives:</u> Goal: Delivery of nutrition and physical activity education intervention (EatFit) to adolescents in middle school settings in three counties using food stamp eligible schools. Objectives:
- 1) Determine if intervention intensity influences dietary and physical activity outcomes.
- 2) Determine if a retrospective measure of dietary and physical activity behaviors is as good as the traditional pretest-posttest measure.
- 3) Determine if the intervention improves participants' attainment of California's Department of Education content standards

## 2. Description of FSNEP Project: (Please include only the nutrition education portion of the project that was funded by FSNEP)

Three California FSNE counties were recruited to be involved in the project: San Joaquin County, Tulare County and Calaveras County. The three NFCS advisors in the respective counties recruited and hired a half-time program representative to aid in conducting the project. At the state office, an SRA was hired to assist in project coordination.

Targeting FSNE eligible's, the EatFit intervention was delivered to FSNE eligibles in each of the participating counties while at the same time investigating specific issues valuable to the FSNE program. In San Joaquin County, the usual FSNE 6-lesson education format was compared to a 12-lesson format. In Tulare County, students receiving the EatFit intervention were evaluated for impact on specific California Department of Education content standards. Lastly, in Calaveras County, students receiving the EatFit intervention were evaluated using two different formats: 1) retrospective pretest-posttest or 2) traditional prospective pretest-posttest.

### 3. Project results and discussion of results.

The overall goal of the project was achieved where 534 low-income and/or FSNE eligibles in three participating California counties received nutrition and physical activity education (EatFit).

Determining optimal intervention intensity to meet the time constraints of the school teacher and maximize behavioral impact for the FSNE program has value. The project in San Joaquin county investigated the influence of intervention intensity on 7th & 8th grade participants' dietary and physical activity behaviors (n=157) and found that the intervention intensity of six sessions resulted in similar outcomes for changing one dietary and one physical activity behavior in adolescents compared to the intervention intensity of 12 sessions.

The Youth Program for FSNE does not currently have a means of determining if the education received by youth has been effectively delivered and if the messages are practical and useful to the youth. The traditional evaluation process requires about 20 minutes to administer before and after the lessons with two visits by the FSNE youth assistant to the school once the teacher is trained. The modified brief process (called a retrospective pre method) requires only 1 visit by the youth assistant after the lessons are delivered by the teacher. The project in Calaveras County compared these two evaluation methods (retrospective vs. traditional) with 7th and 8th grade students (n=188) and found that the retrospective pretest-posttest method was as good a measure of dietary and physical activity self-efficacy and behavior as the traditional prospective pretest-posttest method.

Public schools throughout California are addressing the California Department of Education Content Standards. To be a part of the school curriculum, programs must meet components of these standards, including those targeted by FSNE. Therefore, survival of the youth FSNE in schools is dependent on our ability to show we are impacting these standards. In Tulare County, 6th grade students (n=125) received the EatFit intervention and then were assessed using a multiple choice survey including four California Content Areas for 6th grade Math and English-Language Arts. Results indicated that students receiving the EatFit intervention made significant improvements in 6th grade Math and English-Language Arts standards. These results also provide additional evidence to support the inclusion of nutrition and physical activity curriculum in the school setting.

In addition to delivering nutrition and physical activity education to 534 low-income and/or FSNE eligibles and achieving each intended objective, the project team also had 12 conference calls, met on 6 separate occasions for trainings and sharing of information, presented project results at the ANR Human Resources conference and the Society for Nutrition Education conference and conducted a break out session at the FSNE Statewide Conference.

- 4. Provide a copy of any publications or reports on your project. Please see attached: A) Draft of retrospective manuscript submitted to Journal of Youth Development B) Content Standards poster presented at the Food and Nutrition Extension Educators Pre-conference meeting C) Intervention intensity poster presented at the Society for Nutrition Education Conference
- 5. Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.) A) Retrospective pretest evaluation instrument
- B) Content Standards evaluation instrument

6. Please complete the table below:

- C) Marketing material of project results for FSNE county staff
- D) Power point slides presenting results of content standards study at the FSNE Statewide conference

1		
# Low-income enrolled/educated/completed program: 534		
# FSNEP eligible clients enrolled/educated/completed program:	294	

# FSNEP eligible clients contacted: \_\_\_\_0\_\_

For the enrolled/educated/completed program, please fill in the table below:

Ethnicity:		Female	Male
	Hispanic	_45	80
	African An	nerican 13	12
	Asian		27
	White	142	105
	Native Am	erican 1	6
	Other	45	_34
	Total	270	264

## FSNEP FINAL REPORT FFY 05/06 (Due 9/29/06)

Name: Marilyn Townsend, Lenna Ontai-Grzebik, Lorrene Ritchie, Tara Young, Anna Martin, Diane Metz, Yvonne Nicholson, Gloria Espinosa Hall

**Title of FSNEP Project**: Determining Messages for a Nutrition Education Curriculum for Maintaining Healthy Weight

**Amount of FSNEP Funding:** \$44,356

#### 1. Project Goals and Objectives:

Goal: Produce a version of a behavior-based Healthy Weight Index for adults that meets the content criteria established by a panel of experts and is well-understood by FSNEP clients.

### Objectives:

- (1) After extensively reviewing the literature, identify domains and related behaviors with documentation meeting specific criteria established for the Healthy Weight Index.
- (2) Organize a team of experts as needed to assess content validity (Stage 1).
- (3) Continuing with literature review, identify published measures shown to be valid and reliable to identify specific wording of Healthy Weight Index questions for low-income women (Stage 2).
- (4) Using cognitive testing procedures, revise wording of questions with FSNEP clients until clarity and understanding is reached (Stage 3).

## 2. <u>Description of FSNEP Project: (Please include only the nutrition education portion of the project that was funded by FSNEP)</u>

**Stage 1) Domain and behavior selection.** Building on the work of colleagues at the Center for Weight and Health at UC Berkeley, first we completed an updated review of the literature to identify domains relevant to the maintenance of a healthy weight and the avoidance of overweight. Four lines of evidence were reviewed: secular trends, mechanisms, observational/epidemiological studies, and prevention intervention trials. Domains with a preponderance of evidence in support of being important modifiable determinants of obesity were retained for a second literature search of related behaviors. As needed, experts on obesity, education interventions, or FSNEP were consulted (Drs. Jenny Fisher at Baylor, Adam Drewnowski at University of Washington) to advise on the final selection of content domains.

Specific behaviors related to each of the identified domains were then searched in the literature. A behavior was considered to be an action or something a person does, such as eating at least one piece of fruit most days of the week, or eating cereal for breakfast, rather than a measure of intake in grams or ounces. Behaviors specific to adult women from families with limited incomes living in the United States were targeted.

**Stage 2) Item generation**. A third scan of the literature was conducted to generate a pool of items compiled from previously conducted research. The focus was on existing tools with reported psychometric properties that have been validated with low-income consumers. This item pool included as many items as possible for each content domain and many more than desired for the final tool, so that many potential items could be tested and inadequate ones eliminated in the pre-testing phase.

**Stage 3) Item pre-testing**. Each identified item and its response options were tested for comprehension, word usage, and clarity with FSNEP clients. As an iterative process, modifications were made to the wording of items not well understood and revisions were further tested with FSNE participants. We used three qualitative cognitive testing strategies for questionnaire development. The first was the *think aloud* technique where participants responded to a questionnaire item and then are asked to retrospectively describe the meaning of the item and elucidate how she decided upon her selected response option. The second was the use of *probing* to encourage the respondent to elucidate further these meanings. And the third was the *paraphrasing* technique where the respondent was asked to restate the item but using her own words and to make each item more understandable to others.

### 3. Project results and discussion of results.

The overall goal of the project, to create and cognitively test a new Healthy Weight Index for use with FSNE eligible women in California, was achieved.

In stage 1 of the project we found a preponderance of evidence to support 8 diet-related and 3 lifestyle-related domains as determinants of overweight: dietary fat, dietary fiber, fruit and vegetable intake, calcium and dairy intake, sweetened beverage consumption, eating out, breakfast skipping, energy density, physical activity, sedentary activity, and sleep duration. A total of 27 studies were identified that investigated behaviors related to one or more of these 11 determinants of overweight in adults, of which, 2 focused on low-income and only 1 on low-income women. A total of 30 tools were then located that addressed one or more identified behaviors of interest. The majority (n = 20) were validated using at least one test of validity. Four were developed for use in low-income populations and 9 were used for studies involving women only (all SES).

Based on these findings, we proceeded with cognitive testing of each question with 40 food stamp clients using iterative methods. The testing took place in 3 counties at 3 sites with multiple visits to each: Head Start in Sacramento, Food Bank in Stockton, and Head Start in Shasta. We produced 10 versions of the instrument and continued retesting each version until the wording of text was clear to clients. Also questions were tested and revised until researchers and clients were in agreement on the meaning. Not only did clients agree among themselves, but with researchers as well as to the intended meaning. Clients responded to this question "How would you reword this question so it is clearer to other clients at this food bank?" with excellent ideas for simplifying the wording of the question. We also asked them "What would you put in a color photo to better explain this question to clients at this food bank?"

Based on our previous work on a version of the Food Behavior Checklist to improve readability using visual cues, we decided to use the same layout and format for this weight behavior tool. We are still in the process of adding appropriate photographs and then cognitively

testing each photograph as well repeating the procedures used for the text. The visual cue component of this tool was beyond the scope of this original proposal.

We plan to use the results of this project to further refine the drafted instrument. Next steps will include quantitative testing for item internal consistency, temporal reliability, factor analysis, ethnic differences, and content analysis. Develop scoring system and instructional guidance or administering the tool. We also plan to assess for convergent and criterion validity by comparing scores on this tool with other measures of obesity risk. We also want to evaluate if the new tool is sensitive to changes in behaviors of FSNE participants using a longitudinal research design. Finally, with the modified version of the tool we will retest for ease of administration, respondent burden, and readability in order to create a final version of the Healthy Weight Index.

The Healthy Weight Index is a much-needed adjunct to FSNEP resources for preventing overweight among FSNE clients. As such it stands to: 1) help FSNE educators improve their teaching effectiveness and 2) assist FSNE clients focus on appropriate behaviors to change to improve health.

### 4. Provide a copy of any publications or reports on your project.

The summary is here. Manuscripts are not finalized as yet and are not attached:

- (1) Draft of paper to be submitted to the *Preventing Chronic Disease* journal on process of evaluating and selecting domains, behaviors and items from existing tools to develop a Healthy Weight Index for FSNE eligible children. This effort was done in tandem with the project to develop an analogous tool for adult women and is included as it contains a more thorough description of literature review process.
- (2) Draft of paper to be submitted to peer reviewed journal on process of evaluating and selecting domains, behaviors and items from existing tools to develop a Healthy Weight Index for FSNE eligible adult women. The above paper is referenced in this one.

## 5. Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.)

Draft of Healthy Weight Index developed for FSNE eligible adult women.

6. Please complete the table below:

The text is completed and is part of this grant. We have provided additional work in the form of visual cues and that version (attached) is in progress.

## 

Hispanic	<u> </u>	2
<b>African American</b>	10	1
Asian	5	
White	<u>10</u>	2
<b>Native American</b>	<u> </u>	0
Other		0
Total	35	5

### FSNEP FINAL REPORT FFY 05/06

Name: Marcel Horowitz, Tammy McMurdo, Marilyn Townsend, Lucia Kaiser, Larissa Leavens, Kathi Sylva, Anna Martin, Mical Shilts, Lenna Ontai, Judith Stern, Christine Bruhn, Linda Harris

Title of FSNEP Project: Point-of-Purchase Nutrition Messages

**Amount of FSNEP Funding:** \$121,003

### 1. Project Goals and Objectives:

Goal: To adapt and test the feasibility of providing nutrition education messages through *Point of Purchase* checkout coupons to Food Stamp Program (FSP) participants at the grocery store.

The objectives of this project were to:

- 1) Locate a supermarket to collaborate with on this project.
- 2) Determine methods of placement and dissemination for the messages.
- 3) Adapt "Did you know...." messages in the areas of healthy eating, weight control, and child feeding that will be used on *Point of Purchase* coupons.
- 4) Select a method of targeting food stamp program participants and creating rules for dissemination of *Point of Purchase* messages to FSP participants.
- 5) Create a list of supermarkets in California with this marketing method in place.
- 6) Place a message at 1 supermarket and field test this method disseminating nutrition education messages to FSP participants.
- 7) Create a list of suggestions or alternatives to this method of disseminating nutrition education messages to FSP participants.

### 2. <u>Description of FSNEP Project:</u>

This project tested the feasibility and cost of adapting *Point of Purchase* (POP) coupons disseminated by grocery stores to provide nutrition education messages to Food Stamp Program (FSP) participants. Testing feasibility is essential, because our ultimate intent is to target FSP participants with specific nutrition education messages based on their shopping behavior. In the first few months of this project, we researched how *POP* coupons are disseminated in grocery stores using Catalina technology, how FSP participants could be directly targeted with the nutrition education messages using this technology, and on locating a grocery store to collaborate with on this project. We piloted this project at Raley's Grocery Stores (Raley's, Bel Air and Knob Hill) using Catalina Marketing technology. We adapted nutrition education messages for healthy eating, weight control, and child feeding with a special focus on fiber intake. Food safety tips were incorporated into the messages. Selected messages were pilot-tested with FSNE participants in San Joaquin County to ensure that they were easy to read, understand, and would encourage behavior change. A determination was made to target fiber and focus on whole wheat bread. Kathi Sylva's design class on the UCD campus also developed campaign materials that included a logo to be used with the messages, a shelf tag to indicate which foods were part of the campaign, and educational poster

to be used in the grocery store. State FSNE staff coordinated efforts with Raley's and Catalina Marketing and adapted sample menus to support selected messages.

We then pre-pilot tested one nutrition education message campaign to see how this delivery method worked and how many customers this campaign would reach. This first campaign encouraged individuals to increase their fiber intake when selecting Raley's brand cereal. For this campaign, Raley's funded all costs and decided to test the message with all customers, not just FSP participants. We worked with the Raley's corporate dietitian and the marketing department manager located in Sacramento to set up this campaign. Raley's marketing department provided us with a specified number of coupon prints free of cost to prepilot test this delivery method.

Next we pilot tested a second campaign that targeted only FSP participants who purchased bread. We assured that only FSP participants were reached by providing the messages to customers who paid for groceries with EBT cards. A "smart choice" message was provided to FSP participants purchasing bread labeled whole wheat with 2 or more grams fiber per slice. FSP participants purchasing bread that was not targeted received an "education" message encouraging them to purchase whole wheat bread with 2 or more grams fiber per slice. Only EBT food stamp recipients received these messages.

## 3. Project results and discussion of results.

The overall goal of this project was to test the feasibility and cost of providing nutrition education messages through *Point of Purchase* technology to FSP participants and FSP eligible shoppers. The message campaigns were run in all of Raley's California stores (118 stores) which are located in Northern and Central Valley of California. The number of people reached during these campaigns is shown in Table 1.

Table 1: Number of FSP participants reached by both campaigns

- *************************************		
	FSP Participants	Other Customers
Campaign 1	103	8595
Campaign 2	5835	Not Applicable
Total Customers	5938	8595

This method of education was found to be feasible and no greater in cost than another comparable indirect FSNE contact method. This can be seen in table 2 where the costs associated with a *POP* message campaign reaching 5000 participants is compared to a nutrition education postcard campaign that contains a similar message.

Table 2: Cost associated with 2 different methods of indirect nutrition education<sup>1</sup>

	Point of Purchase Message Campaign	Postcard Campaign <sup>2</sup>
	Catalina	Printing costs = \$800
	Technology	Mailing costs = \$1200
	Print costs = \$ 500	Staff support
	Staff time = \$ 680	for mailing = \$ 192
	(Maintain contacts and identify nutrition	
	information related to UPC codes.)	
Total	\$1100	\$2192

<sup>&</sup>lt;sup>1</sup> Assume the cost to develop and pilot test the postcard and POP message is the same.

out to low-income participants.

This method may also be used to tailor nutrition education messages by geographic area. For instance, the messages could be tailored to each county to meet the needs of participants living in the county. Contact information for the county FSNE program office could also be listed on the message.

Other options for providing nutrition education messages to customers (including FSP participants and eligibles) in grocery stores include printing the message in the back of the grocery store receipt or shopping bag, shopping bag stuffers containing the message, displaying the message on in-store posters and shelf tags, and providing nutrition education materials (recipes, smart shopping tips or children's activities) on in-store kiosk that contain the message.

Using Catalina technology to disseminate the messages in grocery stores allows us to track the number of prints given directly to FSP participants, their shopping behavior, and encourage healthy purchasing practices as well as to provide positive feedback immediately when healthy choices are made. Overall, this delivery method and collection of resulting data allow us to look at how nutrition education messages adapted by the FSNE program may impact the shopping behavior of its participants. More research is needed to determine its effectiveness in changing behavior. However, we conclude that the POP nutrition education delivery method is a viable option that is comparable or less costly than other indirect education methods.

## 4. Provide a copy of any publications or reports on your project.

None at this time

# 5. Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.)

- A) Nutrition education messages adapted for use in grocery stores
- B) Sample coupon prints containing messages used in each campaign
- C) Brochure to market project to grocery stores
- D) Sample menus designed to support POP messages

<sup>&</sup>lt;sup>2</sup> Assume that a postcard containing a message similar to in content and length to the POP message is mailed

6. Please complete the table below	<b>:</b>		
# Low-income enrolled/edu # FSNEP eligible clients en # FSNEP eligible clients co	rolled/educated	/completed progran	n:
For the enrolled/educated/comple	ted program, pl	ease fill in the table	below:
We were unable to determine gende education messages, but we assume	•		_
Ethnicity:	Female	Male	
Hispanic			
African American			
Asian			<u> </u>
White			_
Native American			_
Other			_
Total			<u>_</u>

## FSNEP FINAL REPORT FFY 05/06 (Due 9/29/06)

Name: <u>Lenna Ontai</u>	
Title of FSNEP Project: Creat	ting Healthy Families
Amount of FSNEP Funding:	\$42,600

#### 1. Project Goals and Objectives:

#### Goals

1) Implement and conduct an impact evaluation of the "Creating Healthy Families" parent tip sheets developed by the Families with Young Children workgroup for FSNEP parents of children aged 2-5 years 2) Strengthen the ability of FSNEP paraprofessionals to respond to and support parents of 2-5 year old children in their efforts to incorporate nutrition information into their children's lives.

## Objectives

1) Pilot test the "Creating Healthy Families" parent tip sheets in both English and Spanish across 5 county FSNEP programs 2) Conduct an impact evaluation assessing whether the delivery of the information to FSNEP parents of 2-5 year old children increases their ability to provide increased nutritional practices in their homes 3) Develop a program to train FSNEP paraprofessionals on the parenting information related to child feeding practices that is incorporated in the "Creating Healthy Families" parent tip sheets.

# 2. <u>Description of FSNEP Project: (Please include only the nutrition education portion of the project that was funded by FSNEP)</u>

The use of the "Creating Healthy Families" parenting brochures (developed for use with FSNEP clientele) were field tested with 88 English and Spanish speaking food stamp eligible and low-income clientele with young children in 8 counties, and educator materials were developed and field tested (Note: an additional 111 control group participants in 7 counties completed surveys. Complete materials were supplied to control group counties at the completion of data collection) All participants with children between the ages of 2-5 years completed pre and post-test surveys to assess whether the supplemental materials impacted their nutrition related attitudes and behaviors with young children. Educators gave feedback on how helpful the materials were in teaching nutrition information to parents with young children.

### 3. Project results and discussion of results.

Results indicate that the Creating Healthy Families supplemental materials had a positive impact on parents' nutrition attitudes, and increased educators' feelings of effectiveness in delivering nutrition education to parents of young children. Parents who received the materials had a significant increase in nutritional attitudes and behaviors as compared to the control group. Specifically, the parents receiving the materials evidenced increased knowledge in healthier eating habits ( $t_{183} = -2.31$ ; p = .02) as compared to the control group; furthermore, the two groups were not significantly different from one another at the pre-test assessment ( $t_{163} = .92$ ; p = .36) (see Figure 1). The parents who received the materials also showed increased knowledge for using food appropriately when disciplining as compared to the control group ( $t_{163} = -2.55$ ; p = .01) (see Figure 2) and again were not significantly different at the pre-test assessment ( $t_{183} = .75$ ; p = .45).

## 4. Provide a copy of any publications or reports on your project.

Attached is an Executive Summary of the evaluation that will appear with the materials on the ANR Families with Young Children workgroup website. A manuscript of the evaluation study is in preparation.

## 5. Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.)

Included with this report are the complete set of "Creating Healthy Families" brochures in English, and the five Spanish brochures that were tested in the current project (the remaining brochures are being translated for low-literacy Spanish speaking audiences as part of another funding source) and the educator materials.

## 6. Please complete the table below:

# Low-income enrolled/educated/completed program: \_\_\_199\_ # FSNEP eligible clients enrolled/educated/completed program: \_\_86\_ # FSNEP eligible clients contacted: \_\_118\_

## For the enrolled/educated/completed program, please fill in the table below:

(\*Note: Numbers below are for FSNEP enrolled/educated/completed program)

<b>Ethnicity:</b>		<u>Female</u>	Male
	Hispanic African American Asian White Native American	$     \begin{array}{r}                                     $	$     \begin{array}{c}       0 \\       \hline       1 \\       \hline       0 \\       \hline       0 \\       \hline       0     \end{array} $
	Other	2	0
	Total	85	1

Figure 1.

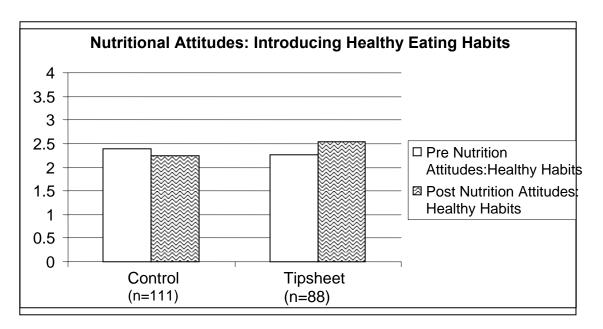
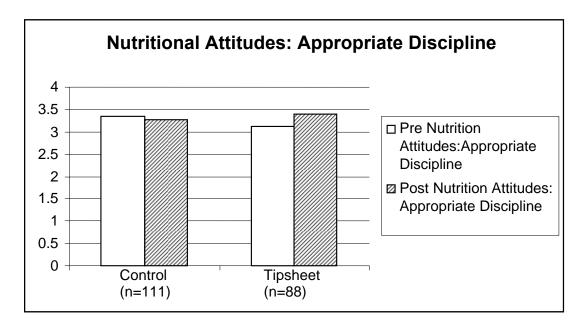


Figure 2.



## FINAL REPORT FSNEP COLLABORATOR FFY 05/06 (October 1, 2005 – September 30, 2006) (Due 10/16/2006)

Principal Investigator: May-Choo Wang, DrPH, RD

Title of FSNEP Project: Implementation and Evaluation of a Bone Health Curriculum Among Adult

**FSNEP** 

**Amount of FFY 05/06 Funding:** \$131,215

Name and title of Contact Person: May-Choo Wang, DrPH, RD/Adjunct Asst. Professor

Address, telephone, FAX and e-mail for contact person:

2180 Dwight Way, #C Berkeley, CA 94704 Tel: 510-642-3589

FAX: 510-643-8197

### 1. Background and Significance

It is estimated that about 10 million Americans have osteoporosis and another 34 million have low bone mass and are at risk of developing osteoporosis. Osteoporosis risk is higher in women than in men, and four times higher in White and Asian women than Black women. Although osteoporosis is more prevalent in White and Asian than in Black and Latino populations, recent studies suggest that the prevalence of osteoporosis and osteopenia (low bone mass) in Blacks and Latinos are not insignificant. California has a higher prevalence than any other state, costing an estimated \$2b in medical expenditures. <sup>2-4</sup>

Recent studies report that socioeconomic status is associated with bone density. Wang and Dixon have reported that education is associated with higher bone density in low income postmenopausal women, and also noted that Food Stamp participation is associated with increased calcium intake among low-income postmenopausal African American women. They

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<sup>&</sup>lt;sup>1</sup> Looker A.C., Johnston C.C. Jr, Wahner H.W., Dunn W.L., Calvo M.S., Harris T.B., Heyse S.P., Lindsay R. (1995) Prevalence of low femoral BMD in older U.S. women from NHANES III. J. Bone Miner. Res. 10: 796-802. of low femoral BMD in older U.S. women from NHANES III. J. Bone Miner. Res. 10: 796-802.

<sup>&</sup>lt;sup>2</sup> Consensus Development Conference (1993) Diagnosis, prophylaxis, and treatment of Osteoporosis. Am J Med 94:646-9.

<sup>&</sup>lt;sup>3</sup> Max W, Sinnot P, Kao C, Sung HY, Rice DP. The burden of osteoporosis in California, 1998. Osteoporosis Int. 2002;13(6):493-500.

<sup>&</sup>lt;sup>4</sup> Ray NF, Chan JK, Thamer M, Melton LJ III (1997) Medical expenditures for the treatment of osteoporotic fractures in the United States in 1995: Report from the National Osteoporosis Foundation. J Bone Miner Res 12:24-35.

<sup>&</sup>lt;sup>5</sup> Wang MC, Dixon LB (2005) Socioeconomic influences on bone health in postmenopausal women: Findings from NHANES III, 1988-1994. Osteoporosis International (in press).

concluded that bone health education may be helpful for the adult Food Stamp eligible population to increase calcium intake and reduce osteoporotic fractures. <sup>5</sup>

## 2. Goal/Specific Objective of Project

The overall goal of the project was to reduce osteoporosis risk among Food Stamp eligible women and their families. The specific aims were to implement the use of a bone health curriculum; and evaluate its effects on nutrition knowledge as well as its use by FSNEP counties.

#### 3. Methods

A comprehensive three one-hour lesson bone health curriculum was adapted and distributed. All handouts were translated into Spanish and Vietnamese. These materials have been posted on the internet (<a href="http://groups.ucanr.org/bonehealth/">http://groups.ucanr.org/bonehealth/</a>). To test and evaluate these materials, the lessons were delivered in three counties and differences in pre-post knowledge scores of clients in these counties were compared with those of clients in three control counties. For all three lesson plans, the change in knowledge score was significantly higher in the intervention than in the control counties (See Tables and 2). The findings from this phase were used to finalize the educational materials in all three languages.

**Table 1**Summary of Means and Medians

	Survey 1*		Survey 2	2**	Survey 3***		
		Intervention	Control	Intervention	Control	Intervention	Control
	Baseline	2.13	2.34	3.21	3.11	4.19	3.58
Means	Endpoint	3.37	2.55	3.65	3.12	4.54	3.65
	Change	1.23	0.21	0.43	0.02	0.35	0.07
	Baseline	2	2	3	3	5	4
Medians	Endpoint	4	3	4	3	5	4
	Change	1	0	0	0	0	0

\*Total possible score: 4 \*\*Total possible score: 4

\*\*\*Total possible score: 5

**Table 2**Summary of Two-sided P-values

	Survey 1	Survey 2	Survey 3
Baseline	0.10	0.13	< 0.0001
Endpoint	< 0.0001	< 0.0001	< 0.0001
Change	< 0.0001	0.004	0.02

Twenty-four adult FSNEP counties (7 North Coast and Mountain Region; 4 Central Valley Region; 13 Central Coast and Southern Region) were then invited to implement the use of the bone health curriculum, and participate in two phone interviews conducted to determine if and how the bone health curriculum was used. A 1 ½ hour hands-on learner centered training was delivered by six nutrition educators from four counties to approximately 40 adult FSNEP Nutrition Educators and NFCS advisors at the FSNEP annual meeting in August 2006.

## 4. Findings

Of the 24 FSNEP counties, eleven (2 North Coast and Mountain Region; 2 Central Valley Region; 7 Central Coast and Southern Region) agreed to participate in two phone interviews to be conducted four weeks and eight weeks after the curriculum was disseminated in September 2006. A copy of the questionnaire used for the phone interview is given in the Appendix.

Nine initial interviews were conducted with eight counties four weeks following completion of administration of baseline questionnaires. The remaining initial and follow-up interviews are currently being conducted. Transcripts from the interviews will be analyzed and findings from the final analysis of these transcripts are expected to be submitted by December 31, 2006. Preliminary analyses of these interviews indicate that nutrition educators are using the curriculum in the integrated four-hour lesson series and mini-workshops. All the nutrition educators interviewed to date have responded that the lesson plans are easy to deliver and complementary to other FSNEP curriculum; the handouts very informative and culturally appropriate; and the website easy to navigate. The counties with Spanish-speaking and Vietnamese-speaking clientele have noted that having the handouts translated is beneficial. Nutrition educators with Spanish-speaking clientele have shared that the osteoporosis prevention handouts in Spanish fills a need.

#### 5. Conclusion (How will the results of this project be used in FSNEP?)

The bone health lesson plans, educational handouts, including bone models, have been made readily available to all FSNEP advisors at no cost and are being integrated into the statewide FSNEP Nutrition Education Plan. All educational handouts have been translated into Spanish and Vietnamese. The bone health lesson plans, educational handouts, and implementation guidelines have been made available on the internet at <a href="http://groups.ucanr.org/bonehealth/">http://groups.ucanr.org/bonehealth/</a>.

#### 6. Target Audience

- A. Number of FSNEP eligible (Poverty level <130%) served N/A
- B. Number of low-income (Poverty level <185%) served N/A
- C. Location of Project: adult FSNEP counties

#### **FSNEP FINAL REPORT**

FFY 05/06 (October 1, 2005 – September 30, 2006)

Name: Joanne Ikeda

Title of FSNEP Project: Reducing Risk in Childhood Overweight Among Families from

Southeast Asia and China

**Amount of FSNEP Funding:** \$96,733

### 1. Project Goals and Objectives:

The goal of our this year project was to develop educational materials that can help immigrant Chinese and Hmong parents understand how they can adapt to a new environment and food supply in a way that foster the health and welfare of their children for the purpose of reducing risk of adult and childhood obesity..

- a) Conduct group interviews to first explore parents' household management attitudes and behaviors surrounding issues related to obesity with low-income Asian parents who have immigrated to the United States within the last 10 years. The parents had limited ability to speak English and had children between the age of 5 and 10.
- b) Use the results of the interviews to develop culturally relevant and sensitive educational materials for use by Chinese and Hmong parents. These materials should guide parents on their household management skills to help their kids.
- c) Pilot test and evaluate these materials with small groups to see if there is an increase in cognitive knowledge, attitudes about overweight in children, and intentions to change family health behaviors.
- d) Disseminate materials or information on how to obtain materials through Center for Weight and Health website, Food Stamp Nutrition Education website, public health list serve, Society for Nutrition Education list serve, etc.

## 2. <u>Description of FSNEP Project:</u> (Please include only the nutrition education portion of the project that was funded by FSNEP)

In collaboration with county FSNEP staff, the project team conducted interviews in Sacramento, Oakland, San Jose and Los Angeles areas. The questions were focused on the issues related to obesity risk factors such as concept of healthy and unhealthy foods, barriers on physical activities, timing children spent watching TV or using computer, fast foods, soft drink as well as their knowledge on the issue of obesity. Each interview took about 2 hours. Interview participants were recruited in an opportunistic and convenience manner and no ethnographic tasks were undertaken. A total of 40 Asian American parents participated in three interview groups. Among them 8 were men and 32 were female. The age range was between 26 and 44. The interview sessions were taperecorded and each participant received a small stipend. The tapes were transcribed then

translated into English and summarized. A qualitative analysis was then conducted and the macro summary of findings was developed.

The results of the interviews were used to layout themes and contents of the obesity educational materials. The pamphlets were first written in English, reviewed by obesity experts, adapted into Chinese and Hmong languages then reviewed by community health experts for culture integrity and language accuracy.

#### 3. Project results and discussion of results.

It's a set of 5 interactive pamphlets in Chinese and Hmong languages entitled:

- Healthy Weight for My Child
- What to Eat More of and What to Eat Less of
- Children Need to Play and Move Their Bodies Everyday
- Fast Foods and Soft Drinks: How to Make Healthier Choice
- Balancing TV and Computer Time with Play Time

The educational materials discuss all the misconceptions, concerns and problems mentioned by the parents during focus group sessions. On top of the information, the materials in Chinese also have an extra reading page encouraging parent to talk and listen to the need of their children.

The educational materials were pilot-tested with a total of 11 Chinese and Hmong parents. All parents said that they like the colorful and "modern looking" of the pamphlets. Chinese parents said that the questions on the extra reading pages would help them posing questions on the obesity and healthy lifestyle issues with their children. They also said that the pamphlets are easy to understand. The Hmong parents said the English texts would help them to learn more English words and better understand the messages since most of the young bilingual parents are more or less fluent in one of the two languages. All parents expressed intentions to change family health behaviors such as buying less soft drinks and fast foods. They would provide fruits and make healthy snacks for their children. They would spend more time with their children, not letting them watch too much TV and playing online games.

## 4. Provide a copy of any publications or reports on your project.

NA

6. Please complete the table below:

5. Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.)

http://nature.berkeley.edu/cwh/activities/asian\_lang\_publications.shtml http://www.actionforhealthykids.org/resources.php

#	Low-income enrolled/educated/completed program:	NA	
#	FSNEP eligible clients enrolled/educated/completed	program:	NA
#	FSNEP eligible clients contacted: 21		

For th	e enroll	ed/educ	ated/com	pleted	program,	please t	fill in	the t	able	below:	NA

Ethnicity:		<b>Female</b>	<b>Male</b>
	Hispanic African American Asian White Native American Other	32	8
	Total		

## FSNEP FINAL REPORT Collaboration Project

## **Promoting Wellness in Early Childhood**

FFY 05/06 (October 1, 2005 – September 30, 2006)

#### **Background/Introduction**

This project is based on literature suggesting that staff wellness activities with nutrition educators can have a significant positive impact on self-efficacy in conducting nutrition education with low-income clients. This project worked with low-income food stamp eligible families via their child care programs, field-testing educational materials with them in diverse settings in Tulare, Los Angeles and Contra Costa Counties.

This project builds on the successful results of the *Promoting Wellness in Early Childhood* project where child care providers reported providing more fresh fruits and vegetables to children in their care, and were more likely to talk to parents about nutrition and physical activity, compared to providers who didn't participate in the program.

The previously developed training and educational materials used by participants in the *Promoting Wellness in Early Childhood* project were tested and will be made available to a large audience of providers working with low-income, food stamp eligible children and families.

Improving the nutrition and physical activity habits of food stamp eligible children and their parents is critical to halting and reversing the current trend in rising obesity rates for millions of low-income families. By demonstrating that enhancing nutrition education for child care providers and parents is an effective mechanism for changing nutrition and physical activity practices, this project can have national impact.

## **Project Objectives**

The overall goal of the project is to promote healthy eating, active lifestyles, and behaviors consistent with the Dietary Guidelines for Americans among low-income children and families.

The project objectives are the following:

- o Complete analysis of data collected from intervention and control sites.
- o Prepare reports and manuscripts to share the project findings with members of the nutrition education and child care communities.
- Adapt and distribute project materials for testing and piloting in Contra Costa, Tulare and Los Angeles Counties.
- o Work with Contra Costa, Tulare and Los Angeles Counties to assist them implement the project and to determine whether materials need modifications for larger audiences.
- o Determine the impact of the project.

#### **Project Results**

At the conclusion of this project (by September 30, 2006), the following was accomplished:

### Expanded and adapted program for field-testing and wider audiences

- Developed a binder kit for county child care organizations to use to field-test the program and its materials.
- Expanded the monthly newsletters from 9 months to 12 months and rewrote the content so child care centers could begin the program at any time of the year.
- Expanded the paycheck stuffers from 9 months to 12 months for year round use.
- Developed physical activity component orientation script for presenting program to child care sites.

#### Piloted program and materials in three counties

- Five child care centers (YMCA, Head Start, independent) in Contra Costa County were selected to participate with assistance from the Contra Costa County Child Care Council partner, reaching 671 families and 114 staff.
- Early Learning Center (Maizeland Child Care Center) affiliated with the El Rancho Unified School District serving low income families with full day care for children 18 months to 5 years was selected to participate, located in the city of Pico Rivera in the Los Angeles area.
- A group of 58 home-based Head Start educators who serve low-income families throughout Tulare County who meet regularly with the Nutrition Program Manager from Cooperative Extension was selected to participate.

## Evaluated and reviewed program and materials

Key learnings:

- Face-to-face introduction of the program and a motivated childcare director was key to program implementation success.
- It was determined that a sponsor (health department, cooperative extension staff, etc.) is needed to support program implementation in child care settings. Child care center director alone are unlikely to introduce and sustain the program on their own.
- The team-based physical activity (walking) program, supported by monthly newsletters, was the most popular way the program was implemented.
- Participants expressed interest and readiness to work on food-related changes after participating in the physical activity component.
- Regular wellness reminders via newsletters and other health and nutrition tip information kept participants involved and motivated.
- Newsletters in both Spanish and English were key to generating involvement in childcare centers.

### Developed web delivery strategy for final program materials

Based on feedback from project partners and site participants, delivering the program and it's materials from a web site would enable the widest audience to access the materials in the most cost effective way. The Center for Weight and Health, UC Berkeley web site, was selected for final distribution of the materials. The material will be made available in a phased in approach in the Fall of 2006.

Table 1 and 2 contain a summary of the tasks completed to achieve the program and evaluation objectives and related tasks (action steps).

## (i) Table 1: Project Objectives and Action Step Results

Objectives	Action Steps	Achievements
Complete the	Complete data entry	Survey data entered into
analysis of data		database
collected from	Clean data set and run preliminary	Data cleaning completed; two
intervention	analysis	preliminary finding summaries
and control		completed
sites	Complete pre/post comparison of	Analysis completed
	data from intervention and control	
	sites	
Prepare reports	Work with Contra Costa Child	Held 2 meetings to summarize
and	Care Council to review data	lessons learned and presented
manuscripts to	analyzed and compile lessons	preliminary findings in
share the	learned	December 05 &April 06
project	Determine publications most	Identified potential publications
findings with	appropriate for reporting findings	and submission date
members of the		requirements; presented findings
child care		to California Head Start
communities		Association; abstract prepared
serving food		and presentation accepted at
stamp eligible		APHA Nov 06 meeting
families	Write reports and manuscripts	Manuscript has been prepared
Adapt and	Compile materials adapted for	Packaged materials into a binder
distribute	program and determine changes	kit and compact disc for
project	needed for sharing them with a	distribution to trial sites in Oct-
materials for	larger audience	Nov 05. Adapted and redesigned
piloting with		newsletters, paycheck stuffers
other programs		and physical activity materials in
		Oct-Dec 05 and Jun-Sept 06 for
	T 1	use with broader audiences.
	Translate materials and test	Translated staff and parent
	translated materials.	newsletters and evaluation forms
		into Spanish Dec 05-Jun 06. Set
		up focus groups with Spanish
		speakers to review translated
		newsletters Aug-Sept 06.

	Distribute materials to participating Counties	These low-income child care sites received program materials to trial and review by Dec 05:  Tulare 15 sites/58 staff/542 families served LA: 1 site/ 60 staff/1213 families served Contra Costa: 5 sites/114 staff/671 families
	Revise materials	served Completed program name copyright search, renamed program, redesigned newsletters, revised log book, created program instructions for stand- alone use. (May-Sept 06).
Work with counties to support project implementation	Communicate with Counties on a regular basis to support project efforts	Project team meetings held bi- weekly with reports on trial site progress in Tulare, LA and Contra Costa Counties; newsletters sent to Cooperative Extension Specialist reviewers for input (Aug 06)
	Determine changes in implementation and in materials that would strengthen project	Based on trial site and county input, developed a web-based strategy for material distribution (Jul-Sept 06). Made final revisions to materials (Jul-Sept 06)

**Table 2: Evaluation Objectives and Action Step Results** 

Objectives	Action Steps	Achievements
Determine	Conduct in-depth interviews and	Completed recruitment materials
impact of	administer questionnaires with staff	and interview form for
program on	members at each participating	participant; completed
food stamp	program site to determine project's	questionnaire and interview
eligible	impact	logistics plan.(Dec 05 – Apr 06)
children and		Documented initial feedback on
families		program and materials and
		collected bi-weekly input as sites
		used the materials. (Dec 05 –
		May 06); administered staff
		questionnaires and staff
		interviews- received a total of 51
		completed questionnaires and
		completed 9 staff interviews (Apr
		– Jun 06):
		Tulare
		completed 19 questionnaires and
		1 interview
		LA .
		completed 12 questionnaires and
		2 interviews
		2 increers
		Contra Costa
		completed 20 questionnaires and
		6 interviews
Evaluate final	Survey 100 food stamp eligible	Completed recruitment materials
materials in	parents to ensure final versions of	and questionnaire forms for staff
Tulare, Contra	materials meet needs and	and parents; completed strategies
Costa, and LA	expectations.	and logistics for data collection
counties	expectations.	(Apr 06); Received 110 completed
Counties		parent questionnaires from the
		three County sites (May 06-June
		06).
	Conduct focus groups among	Set up 4 focus groups in LA to
	Spanish speaking staff and parents	review Spanish newsletters (Aug-
	to review translated newsletters for	Sept 06).
	acceptability and understanding.	

## (ii) Summary/Conclusions

The *Promoting Wellness in Early Childhood* project was field-tested in three California Counties. Program and materials were initially packaged and adapted for field-testing. The physical activity component was motivating and engaging, possibly leading to readiness and motivation to adopt positive food-related behaviors. The parent and staff newsletters where well received and needed only minor design changes. It is likely that a support person is needed from an outside agency to help child care center staff implement the program.

Start-up material revisions and intervention process improvements were conducted to enable the program to be expanded and broadened to many child care sites that service food stamp eligible families and children. Valuable feedback was received from trial sites indicating a need to redesign the newsletters, modify program elements, such as the physical activity log sheets, and write program instructional materials for ease of use and improved understanding by program implementers such as county agencies, cooperative extension specialists or other health agencies working with child care centers and staff and parents impacted by the project.

### **FSNEP FINAL REPORT**

## **Expanded Nutrition Education in the School Cafeteria**

*FFY 05/06 (October 1, 2005 – September 30, 2006)* 

#### Introduction

Research has shown that nutrition education can be particularly efficacious when provided in relevant, real-life situations that include experience with foods. Supplying students with nutrition information in the school cafeteria has also been shown to increase student satisfaction with school meals. One of the goals frequently cited by program implementers working in schools is to target nutrition education not only to the children, but to their parents as well, so that family eating habits support the messages being learned in school. The aim of the *Expanding Nutrition Education in the School Cafeteria* project is to take advantage of opportunities for experiential learning by extending classroom nutrition education into the school cafeteria setting to benefit FSNE eligible children and their families.

## **Project Objectives**

- 1. Determine the types of nutrition education activities conducted in the cafeteria setting in selected schools serving food stamp eligible students and what additional materials are needed.
- 2. Systematically locate and review existing nutrition education resources and curricula that could be used to enhance the classroom nutrition education lessons for food stamp eligible students, and their parents.
- 3. Adapt existing nutrition education curriculum materials specific to the cafeteria settings of selected schools and assess the feasibility and acceptability of the enhanced curriculum materials.

## **Project Results**

The following project activities were accomplished:

1. Assessed current nutrition activities in elementary school foodservice settings. Stakeholder interviews were individually conducted with 16 school principals and/or school foodservice directors/managers from 11 schools located in Kern, Tulare, Mariposa, or Fresno County. Assessment by direct observation of a school lunch period was also performed in eight of these schools. All participating schools served both breakfast and lunch. All schools utilized either a cafeteria or multi-purpose room for school meals; some also utilized quad areas and classrooms (notably for school breakfast in 4 schools). An average of 89% of students in the participating schools received free or reduced meals. The greatest proportion of students in participant schools was Hispanic (57%), followed by non-Hispanic White (24%), and African American (14%).

In only a small proportion of schools was promotion of 'competitive' (non-school meal program foods or beverages) evident. Three schools reported hanging signage (banners or posters), 2 schools reported having brand name foods promoted on menus, and 3 schools reported advertising on vending machines. One of the eight schools was observed to have materials posted that promoted a competitive brand name food in the school cafeteria.

The majority of schools (10 of 11) reported using banners or posters to promote nutrition education to children and most of those directly observed (seven of eight) had nutrition education posters or student artwork (e.g., 5-A-Day, MyPyramid) displayed in the school cafeteria. School administrators and foodservice staff also reported using the foodservice menu (ten of 11 schools) and parent group meetings (six of 11 schools) for nutrition education activities aimed at parents. Venues perceived to be most useful for reaching parents were the foodservice menu, parent group meetings, and principal or classroom newsletters, and Back to school or Open House Nights.

Foodservice staff was overwhelmingly interested in expanding the nutrition education activities in school foodservice (all 11 schools reported they were 'very' interested in doing so). Foodservice staff perceived many benefits of having nutrition education activities conducted where school foods are sold or served to children, including promotion of new foods to children and increasing consumption of fruits, vegetables and other healthy foods. The direct observations revealed that all of the schools had space available to display additional promotional materials on healthy eating. Further schools offered meals that children appeared to enjoy in settings that were pleasant, orderly, and amenable to nutrition education. Most commonly cited as additional nutrition education activities desired for foodservice included handouts/resources/articles for newsletters or menus (6 schools), banners/posters (5 schools) and taste testing (3 schools). The perceived barriers most often cited (by all 11 schools) to expanding nutrition education activities were lack of staff time and the cost of materials.

## 2. Identified existing resources and curricula that school foodservice could use to provide nutrition education to FSNE eligible children and parents.

A literature review and on-line scan were completed to collect age-appropriate nutrition education materials that were designed for use in the school foodservice setting or could be adapted for such use. Materials identified included posters, information boards, videos, displays and kits, as well as written materials that could be utilized in fliers or newsletters to parents. Feasibility of using the education materials was documented by examining production costs, limitations, and potential uses. In coordination with NFCS advisors from Kern and Tulare counties, the most relevant and appropriate resources were selected and additional resources were gathered. Parent input (discussed below) was also used to guide topic and resource selection. At the end of the project, a mock tool kit of resources that might be useful for school foodservice personnel was compiled.

#### 3. Assessed preferred nutrition education messages and formats.

In order to maximize reach to parents, we assessed parent perceptions of nutrition topics of interest and formats involving school foodservice to which they would be most responsive. A one-page questionnaire was administered to a sample of 235 parents (209 completed in English, 26 completed in Spanish) recruited from one representative Title 1 elementary school in Kern County (total student population  $\approx$ 700).

The topics of greatest interest, selected by over 80% of parents surveyed, were healthy meals that are easy to make, and nutritious snacks that children like. The next most popular topics, selected by 60% or more of those surveyed, included learning how to eat fewer high sugar and high fat

foods, and how to get children to eat healthier foods. Topics of less concern, selected by approximately half the participants, were how to get more calcium/dairy into the diet, eat more fruits and vegetables, and obtain more dietary iron for anemia prevention.

The formats preferred for obtaining nutrition education information, selected by over 75% of parents, were receiving cooking tips and recipes, and having newsletters or fliers with healthy eating tips sent home. Approximately half of those surveyed also selected cooking demonstrations/recipe tasting events in the school cafeteria, classes on healthy eating, access to on-line resources, and provision of information at Back to School/Open House nights at the school.

### **Discussion of Results and Conclusions**

We found in our sample of schools serving low-income families that: 1) school cafeterias were an underutilized resource for nutrition education; 2) there is keen interest on the part of school foodservice directors and school principals to expand the use of the school foodservice arena for educating students and their families; and 3) parents are interested in receiving information on select nutrition topics from school foodservice. Numerous resources were identified that could be used to promote healthy eating in school foodservice settings. However, foodservice staff has limited time and funds available to locate, purchase, organize and utilize such materials. Students and their families would benefit from having nutrition education resources utilized in school foodservice settings.

## **Future plans**

In the upcoming year we plan to fulfill the needs identified and build upon what we have learned from school administrators, food service directors/managers, and parents. We will refine the package of existing tools we identified and adapt others as appropriate on the primary nutrition topics of interest identified by parents with an emphasis on the main strategies identified for maximizing reach of children and parents. We will train foodservice staff to utilize the tool kit and evaluate its efficacy in teaching nutrition education to food stamp eligible children and their families. By demonstrating that expanding nutrition education to the school foodservice setting is an effective mechanism for changing dietary behaviors of low-income children and their families, this project can have considerable impact.

#### **FSNEP FINAL REPORT**

FFY 05/06 (Due 9/29/06)

Name: Sharon Fleming, PhD.

Title of FSNEP Project: Assembly and Delivery of Nutrition Education Programs for

Overweight Low-Income African American Children

**Amount of FSNEP Funding:** \$54,721

#### 1. Project Goals and Objectives:

The goal of this project is deliver nutrition education curricula that have been revised, updated and translate so that they are appropriate for the African-American children and their families. The families reside in low-income communities in Oakland California. The YMCA sites at which this program is delivered receive and distribute free summer lunch program, qualifying these sites as serving primarily Food Stamp Certified Eligible and Food Stamp Likely Eligible clientele. Specifically the nutrition goals are to reduce intake of sweetened beverages; and increase intake of fruits, vegetables, whole grain cereals and low-fat dairy foods.

## Objectives:

- To determine what nutrition knowledge and information would be most useful to parents for improving practices involving purchase, preparation and consumption of nutritious foods.
- To design a curriculum for the weekly meetings with the youngsters by revising, updating and translating existing nutrition education curriculum materials so that they are appropriate for 9 & 10 year old African American overweight children.
- To design a curriculum for the monthly meetings with the families of these
  youngsters by revising, updating and translating existing nutrition education
  curriculum materials so that they are appropriate for low-income African
  American adults.
- To deliver these curricula during weekly and monthly sessions at two YMCA facilities one located in West Oakland, the other located in East Oakland.
- Demonstrate improvement in food selections of children and their families

### 2. <u>Description of FSNEP Project:</u>

The FSNEP funds were used to deliver existing/adapted nutrition education curriculum materials to the children, youth and families of west Oakland. Focus group interviews were conducted with parents/guardians of the children who were targeted for services. The focus groups were used to determine what nutrition knowledge and information would be most useful. These focus groups were also used to guide the time and location of events at which nutrition curriculum is

#### delivered.

From the data collected during these interviews approximately 30 lessons for the targeted children and 6 lessons for the adults were selected and adapted for delivery to the targeted audiences. Each lesson includes hands-on activities and knowledge dissemination, and each lesson addresses at least one of the nutrition goals. The youth lesson plans were administered at two west Oakland YMCA delivery sites. The adult lesson plans were administered monthly at these same two Oakland YMCA delivery sites. Both facilities deliver summer lunch program to children in the surrounding low-income communities.

Additionally, families received printed information and resources to help them make healthy lifestyle choices. Included were nutrition education materials including materials for preventing Type-2 Diabetes, healthy recipes, and information making them aware of other freed and low cost community resources available to them. Monthly mailings were sent to families informing them of upcoming free and low cost community events.

## 3. Project results and discussion of results.

In total, approximately 1,440 contact hours of nutrition education activities have been delivered to low-income African American children and their families. All of the nutrition education was delivered to Food Stamp certivi9ed and Food Stamp eligible people, a total of approximately 320 individuals.

The weekly nutrition education sessions with the kids were a huge success, with large attendances both by the kids and families. Some of the responses we received from the families included:

"My child loves coming and cannot wait for Friday nights."

"My child has used recipes at home for the family."

My child teaches me about making better food choices."

In summary, the Nutrition Lessons offered at these classes are giving the children the nutrition knowledge and information that will be useful for improving their practices involving purchase, preparation, and consumption of nutritious foods. By delivering the material in an age appropriate and culturally sensitive manner the information and experiences are translating into changes in behavior.

4. Provide a co	py of any publications or reports on your project.	
None		

5. Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.)  None
6. Please complete the table below:
# Low-income enrolled/educated/completed program: 320

# FSNEP eligible clients enrolled/ # FSNEP eligible clients contacted	1 1	nm: <u>320</u>			
For the enrolled/educated/completed program, please fill in the table below: NA					
Ethnicity:	<u>Female</u>	<b>Male</b>			
Hispanic African American Asian White Native American Other					
Total	236	84			

## FSNEP FINAL REPORT FFY 05/06 (Due 9/29/06)

Name:	Karen	Varcoe		
Title of	FSNEP	Project: _	Resource Management to Enhance Nutrition	
A moun	t of FSN	EP Fundi	$ling \cdot $102.581 + $12.308 (coordination) = $114.889$	)

### 1. Project Goals and Objectives:

The major goal of this project was to teach basic financial management and food shopping skills to food stamp eligible families participating in federally funded nutrition programs. Our plan was to work with federal program staff, from Head Start and Migrant Education, who work with clientele on the utilization of resources and food buying practices that help to maximize nutrition.

The objectives of our project were to empower Food Stamp eligible families to take control of their lives and their resources through education and to evaluate the effectiveness of our educational efforts.

# 2. <u>Description of FSNEP Project: (Please include only the nutrition education portion of the project that was funded by FSNEP)</u>

Over the last year a team of five (two advisors, two program representatives, and one specialist) has revised a number of lessons from the Gateway to a Better Life curriculum. Our goals in revising the materials were to lower the reading level to address the needs of low-literacy clientele and to update the materials. Our original plan was to revise the Making Every Dollar Count, Making the Best Choices, and Quick and Nutritious Meals modules from the curriculum. Our final product retained the Making Every Dollar Count name. It includes a total of six lessons:

- Setting Goals,
- Making Choices,
- Stretch Your Dollars with Personal and Community Resources,
- Budgeting Basics,
- Paying Bills on Time Saves Money, and
- When You Can't Pay Cash.

We felt it was vital to include the two Making the Best Choices lessons because goal setting and choice making are necessary steps to reaching financial stability. After surveying UCCE county advisors and program representatives on their use of the original Making Every Dollar Count materials, we discovered they were not using the banking and checking lessons. We decided, at least temporarily, to eliminate these two lessons. We also pulled out the budgeting information from the Paying Bills on Time Saves Money lesson and made it its own lesson.

Since a new nutrition curriculum was being developed, we decided to wait on revisions to the Quick and Nutritious Meals lessons. Once the Healthy Families curriculum is complete we will revise those lessons from the Gateway curriculum that are not covered in the new Healthy Families curriculum.

The new Making Every Dollar Count curriculum retains the basic format of the original curriculum. All handouts and visuals continue to be available in both English and Spanish. Teaching Tips and notes to the instructor have been added to improve the ease of use. The reading level of the handouts and lesson plans was reduced wherever possible and new visuals and handouts were incorporated. A draft of the completed curriculum is currently being reviewed by FSNEP Director, Amy Joy. Once approved for use with the FSNEP program, we will distribute the curriculum on CD to each county with a NFCS Advisor or FSNEP/EFNEP program. The CD will include: lesson plans, handouts in English and Spanish, bilingual PowerPoint visuals, pre-/post-tests for clients, and pre-/post-tests for trainers.

Although not part of the FSNEP funding, an exciting supplement to the Making Every Dollar Count curriculum is a companion web site. A tutorial style web site is being developed which will allow users to complete the lessons and interactive handouts and games online. The web site can be used to reinforce the information NEAs present in a group setting. It can also be used by individuals who do not have the time to attend formal presentations.

#### 3. Project results and discussion of results.

As a result of FSNEP funding we were able to revise existing Gateway to a Better Life materials into a six lesson low-literacy curriculum for food stamp eligible families called Making Every Dollar Count. The curriculum will be made available to FSNEP county staff in their work with limited-resource clientele.

Since we have only recently completed our revisions to the curriculum, we were not able to conduct trainings or evaluate the effectiveness of the materials. We plan to complete this portion of the project, beginning this fall, because this information is vital to expanding the use of the materials. We have volunteer pilot test sites in Riverside, San Joaquin, and Santa Barbara counties and hope to secure a site in northern California as well.

As the Making Every Dollar Count curriculum is distributed and used at the county level, we will evaluate its use and effectiveness in assisting food stamp eligible families to take control of their resources. The clientele pre-/post-tests will measure their knowledge gain as a result of the program.

A survey of NFCS Advisors from throughout California indicated a great interest in having lessons on food buying and shopping skills. Also of interest, were lessons on banking basics and electronic banking. We will review the content of the Gateway lessons once our pilot testing is completed and add these lessons to the Making Every Dollar Count curriculum.

#### 4. Provide a copy of any publications or reports on your project.

N/A

5. Provide a copy	y of any materials t	that were adapte	d/developed (less	son plans, e	valuation
instruments, etc.)	)				

The following items, adapted from the Gateway to a Better Life curriculum, are attached for your review:

- 1. Setting Goals lesson and handouts
- 2. Making Choices lesson and handouts
- 3. Stretch Your Dollars with Personal and Community Resources lesson and handouts
- 4. Budgeting Basics lesson and handouts
- 5. Paying Bills on Time Saves Money lesson and handouts
- 6. When You Can't Pay Cash lesson and handouts
- 7. Pre-/post-tests for all lessons
- 8. Making Every Dollar Count pre-/post-tests for trainers

6. Please complete the table below	:				
Low-income enrolled/educated/completed program:					
For the enrolled/educated/comple	ted program, please fil	l in the table below:			
Ethnicity: <u>Female</u> <u>Male</u>					
Hispanic African American Asian White Native American Other					
Total	-0-	-0-			

## FSNEP FINAL REPORT FFY 05/06 (Due 10/13/06)

Name: Dr. Sheri Zidenberg-Cherr

Title of FSNEP Project: FSNEP Fish Connection (FFC) Program

Amount of FSNEP Funding: \$360, 304.00

### 1. Project Goals and Objectives:

The overall goal for this project is to increase awareness and reduce risk of mercury consumption in low-income food stamp eligible clients residing in eight California counties (Butte, Contra Costa, Placer, Santa Clara, San Joaquin, Solano, Sonoma, and Yolo). Specifically, we aim to:

- 1. Finalize education lesson plans based on the adaptation to current Adult FSNEP lessons with the incorporation of current Department of Health Services recommendations.
- 2. Pilot test a validated and tested behavioral tool (Fish Consumption Behavior Survey).
- 3. Increase awareness and reduce mercury contaminated fish consumption in food stamp eligible clients in the eight counties
- 4. Assess effectiveness of the lesson plans to the food stamp eligible clients in the eight counties with respect to 1) increased knowledge and 2) improved behaviors.

## 2. <u>Description of FSNEP Project: (Please include only the nutrition education portion of the project that was funded by FSNEP)</u>

Through a series of meeting among the Zidenberg-Cherr lab group (Sheri Zidenberg-Cherr, Tu Bui, Julie Schneider and Samira Jones), county advisors, educators, and DHS staff, a new set of FSNEP Fish Connection slides to cover 5 lessons. 5 Adult FSNEP Fish lesson plans and a Fish Knowledge Survey were developed. The lesson plans were developed based on the Joy Noris Learner Center Method of adult learning. In addition to the lesson plans, a curriculum binder was put together with the necessary materials and activities for each lesson. A FFC website, linked to the FSNEP and Department of Nutrition web sites was created for the dissemination of updated materials, resources, and fish advisories from OEHHA. Educators from the eight counties were trained on how to implement the lessons, fish activities and Fish Fact Survey and then provided the lesson(s) to members from low-income population in their community. FSNEP educators were required to collect additional information on 25% of the people they reached by implementing a Pre and Post Fish Knowledge Survey, Food Behavior Checklist, and Family Record.

To understand the impact of fish intake in low-income populations, it was essential to determine the actual amount, frequency, and type of fish or shellfish being consumed. We validated a **Fish-intake Survey** to a **Weighted Fish-intake Record**. Women (18 to 45 years of age)

eligible for FSNEP, were recruited from WIC and food pantries in Fairfield, Vacaville, and Woodland. Each woman was interviewed using a 30-day Fish-intake Survey to assess fish and shellfish consumed, using five fish models (1½, 3, 4½, 6, 7½ ounces) to estimate portion sizes. Frequency of intake and source (purchased as stores or caught from bodies of water) of fish and shellfish were assessed. Each subject was then trained on how to weigh and record fish and shellfish for the 30-day Weighted Fish-intake Record. Analyses are in progress and it is anticipated that a validated fish intake survey will be available for use by FSNEP and DHS by January 1, 2007.

### 3. Project results and discussion of results.

Result from the food behavior checklist: Results have been provided by the individual counties participating in the FFC. In addition, we are inputting the data from the FBC, Family Record and the Fish Facts Tests for analyses and publication in California Agriculture.

**Table 1: All counties combined**. The table shows the percent correct answers from pre to post tests. Tests were used that were matched for pre and post tests.

	Overall	%	Total
	Percentage	Change	Clients
Pre			
Test	32.1%	49.8%	369
Post			
Test	81.9%		369

**Table 2: Fish Facts--% Correct Responses.** 

Each county submitted more Pre/Post Tests; however results were tallied when both pre and post tests were collected. Thus, more clients (n=950) "reached" than shown in the tables below.

County		%	% Change	Total Clients
Butte	Pre	13.6%	56.9%	39
Butte	Post	70.5%		39
Placer	Pre	22.0%	73.1%	59
Placer	Post	95.1%		59
San Joaquin San	Pre	46.8%	35.8%	40
Joaquin	Post	82.5%		40
Santa Clara	Pre	23.4%	66.2%	90

Santa				
Clara	Post	89.7%		90
Solano	Pre	46.7%	23.5%	79
Solano	Post	70.3%		79
Sonoma	Pre	31.6%	45.2%	44
Sonoma	Post	76.8%		44
Yolo	Pre	53.3%	32.8%	18
Yolo	Post	86.1%		18
		Total		
		Client		369

## 4. Provide a copy of any publications or reports on your project.

Please see attachments: Two posters and one report from DHS-EHIB

# 5. Provide a copy of any materials that were adapted/developed (lesson plans, evaluation instruments, etc.)

Please see attachments: 5 lesson plans, a CD with slide sets for each lesson and survey tool

## 6. Please complete the table below:

# Low-income enrolled/educated/cor	npleted program: <u>518</u>
# FSNEP eligible clients enrolled/edu	ucated/completed program:
<b># FSNEP eligible clients contacted:</b>	950

To date, have entered 369 FFC completed Pre/Post test into database, and have another 149 to be entered. Total of 518 FFC Pre/Post test completed. For FBC, there was a total of 523 Pre test given, with 434 FBC Post test. Data can be obtain from Chris Hanson, via ERS system, since there was a unique identifier created for the counties that participated in the FFC program

For the enrolled/educated/completed program, please fill in the table below:

**Ethnicity:** Table reflects results from counties that submitted requested data.

	Female	Male	Total
White (Non-Hispanic)	225	48	273
Black (Non-Hispanic)	47	11	58
American Indian/Alaskan			
Native	22	31	53
Hispanic	224	35	259
Asian/Pacific Islander	82	49	131
Total	600	174	774

## **Project Close-Out Summary Report**

8-10-06

**Project Title:** Research, Outreach, and Education on Fish Contamination in the Sacramento-San

Joaquin

Delta Watershed, Phase 2

**ERP Project number: ERP-01D-C19** 

**Contractor:** Department of Health Services, Environmental Health Investigations

Branch (EHIB)

Term of contract: June 1, 2004 to June 30, 2006

Contract amount: \$421,791

**Fund source:** Proposition 204 (Directed action from 2001 Blueprint)

## I. Project Background Information:

Mercury is prevalent in the Sacramento-San Joaquin Delta watershed due to historic mining activities and natural sources. Mercury levels in some fish species exceed health-based guidelines in many areas of the watershed. The developing fetus is most susceptible to the harmful effects of mercury, thus it is important for women of childbearing age and children limit their exposure to mercury. Fishing for food or recreation is a popular activity throughout the watershed. Fish contamination also raises environmental justice concerns because certain groups may be disproportionately impacted because their reliance on fish as a source of food and their low awareness of health advisories due to cultural or language barriers. Despite efforts to reduce mercury in the watershed, levels in fish are likely to remain elevated for decades. They most effective way to reduce exposure to mercury is to inform fish consuming populations about this problem and encourage them to adopt fish consumption practices that will reduce their exposure.

In 2002, Calfed formed an interagency planning group to explore ways to address fish contamination issues in the watershed. In 2002, DHS began facilitating the planning group and conducting needs assessments in priority areas to identify affected populations and their information needs.

In July 2003, DHS received funding from several sources including \$82,612 from Calfed to convene a stakeholder advisory group, develop an outreach and education strategy, and collect fish consumption information. These activities during 2003 and 2004 were called "Phase 1". This contract ("Phase 2") supported a continuation and expansion of the Phase 1 activities.

## II. Objectives:

The project goal was to characterize populations that consume fish from the watershed and conduct outreach, education, and training activities to reduce exposure to mercury. The specific project objectives were to:

- 1. develop, conduct, and evaluate outreach, education, and training activities to increase knowledge and awareness about fish contamination, health risk of exposure to contaminated fish, and way to reduce exposure;
- 2. identify and characterize populations that consume fish from the watershed in order to understand and reduce their exposure to mercury;
- 3. involve and collaborate with affected communities, community-based organizations, local, state, and federal agencies, and others on project activities.

## III. Results and Findings:

Collaborations with community-based groups and local agencies were an effective approach to reach diverse populations that fish in the Delta. Under this project, EHIB engaged many of these organizations in addressing fish issues in the Delta. These organizations were involved in the project by:

- 1. Participating in trainings and needs assessment;
- 2. Participating on the Local Stakeholder Advisory Group (LSAG);
- 3. Helping to develop, test, translate, and disseminate educational materials;
- 4. Conducting educational activities of their own design (through mini-grants).

EHIB also conducted 4 fish consumption survey activities. Some general findings from these surveys were:

- 1. Fish consumption patterns vary across demographic factors such as ethnicity;
- 2. The inclusion of commercial fish intake, along with sport fish intake, is very important when assessing total mercury exposure;
- 3. Awareness of fish contamination advisories is poor, particularly among non-White groups and people with lower levels education and income.

### IV. Conclusions/Recommendations:

This contract was implemented between October 2004 and June 2006 at a total cost of \$421, 791. In addition, EHIB received funding from other sources that expanded or complimented the project activities. These included:

- 1. A grant for \$36,614 from the Delta Tributaries Mercury Council to support outreach, education, and training activities.
- 2. The Phase 2 project also served as a program match for the Food Stamp Nutrition Education Program (FSNEP), which allowed FSNEP to receive two grants that supported fish education in several counties. FSNEP conducts nutrition education to food stampeligible populations.
- 3. Also, DHS contributed approximately \$100,000 in in-kind support, which was approximately double the amount originally projected in the scope of work.

Currently, many of the Phase 2 tasks have expanded and are continuing. In the area of stakeholder involvement, the Local Stakeholder Advisory Group (LSAG) has continued to meet on a quarterly basis through funding from Calfed (under the Fish Mercury Project, led by the San Francisco Estuary Institute).

In the area of outreach and education, EHIB is continuing these activities through the Fish Mercury Project. The FMP has supported a second year of mini-grants to 5 community-based groups; posting of the Delta Warning sign; development, translation, and printing of educational materials; training activities; needs assessments in several counties; assistance to the Office of Environmental Health Hazard Assessment (OEHHA) in the release of new advisories; and further evaluation activities.

EHIB resources to conduct further fish consumption surveys have been limited. EHIB is seeking resources to complete analysis of the California Women's Health Survey (Task 7) data set. In addition, EHIB is conducting a fish consumption survey and blood testing at a Sacramento medical clinic that serves low-income women with support from the Delta Tributaries Mercury Council (DTMC) and the Regional Water Quality Control Board.

EHIB has the following recommendations for future work:

- 1. Continue and expand risk communication activities.
- EHIB has been able to continue the stakeholder involvement and outreach, education, and training activities under the FMP. However, our ability to address the large geographic area of the watershed and diverse populations that are impacted by fish contamination problems has been limited. Continued funding and support for these activities is needed to fully address fish issues in the watershed.
- 2. Continuation of fish consumption and exposure studies. Information about fish consuming population, their awareness of advisories, their fish consumption practices, and estimates of exposure to mercury (through blood or hair tests) are still very limited. Continued funding and support for these activities is needed.
- 3. Improved collaboration.

Better collaboration among agencies and organizations addressing fish issues is needed. In general, the elements needed to address these issues (monitoring, exposure assessment, advisory development, and risk communication) are under the jurisdiction of many different groups and not well coordinated.

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